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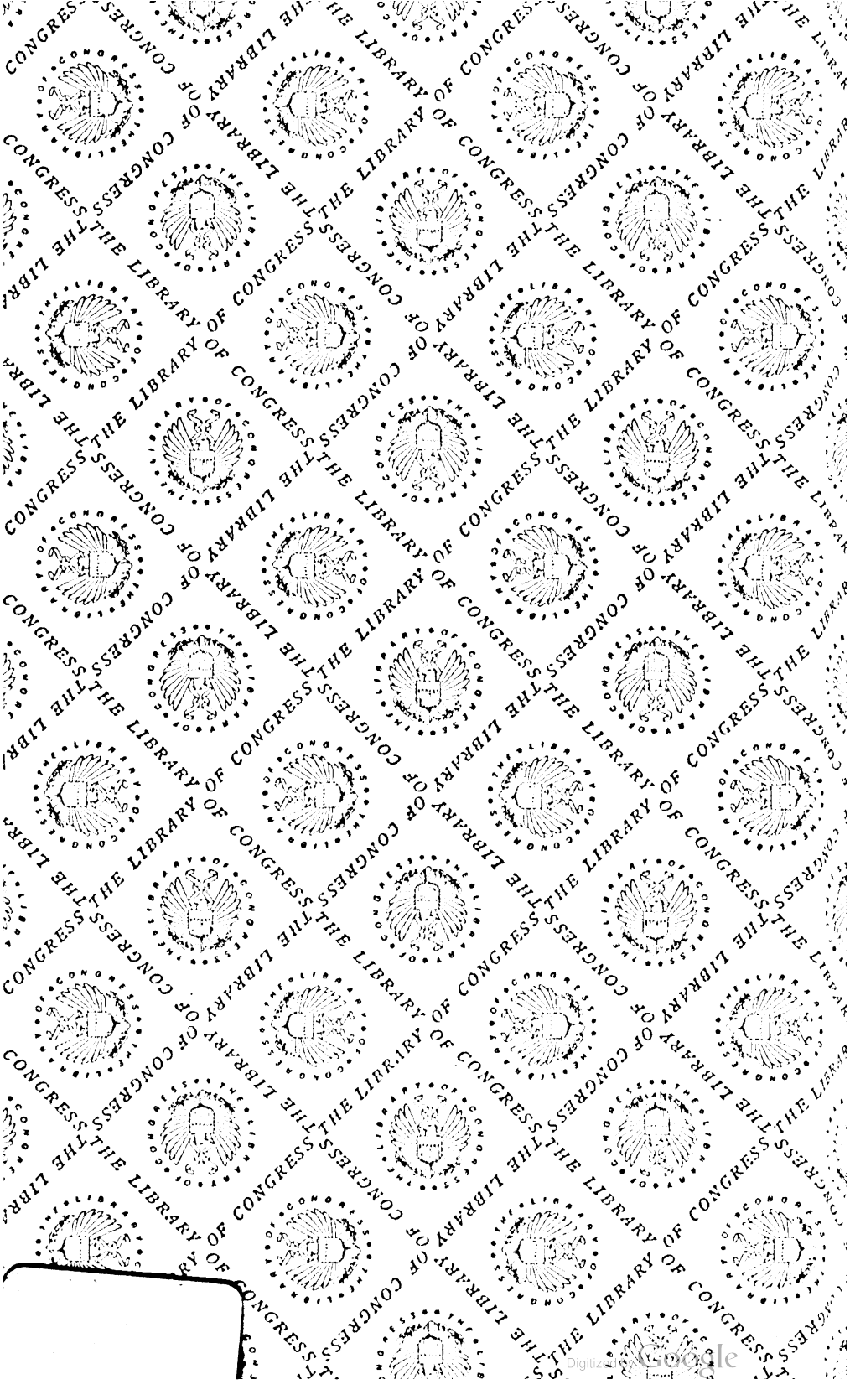
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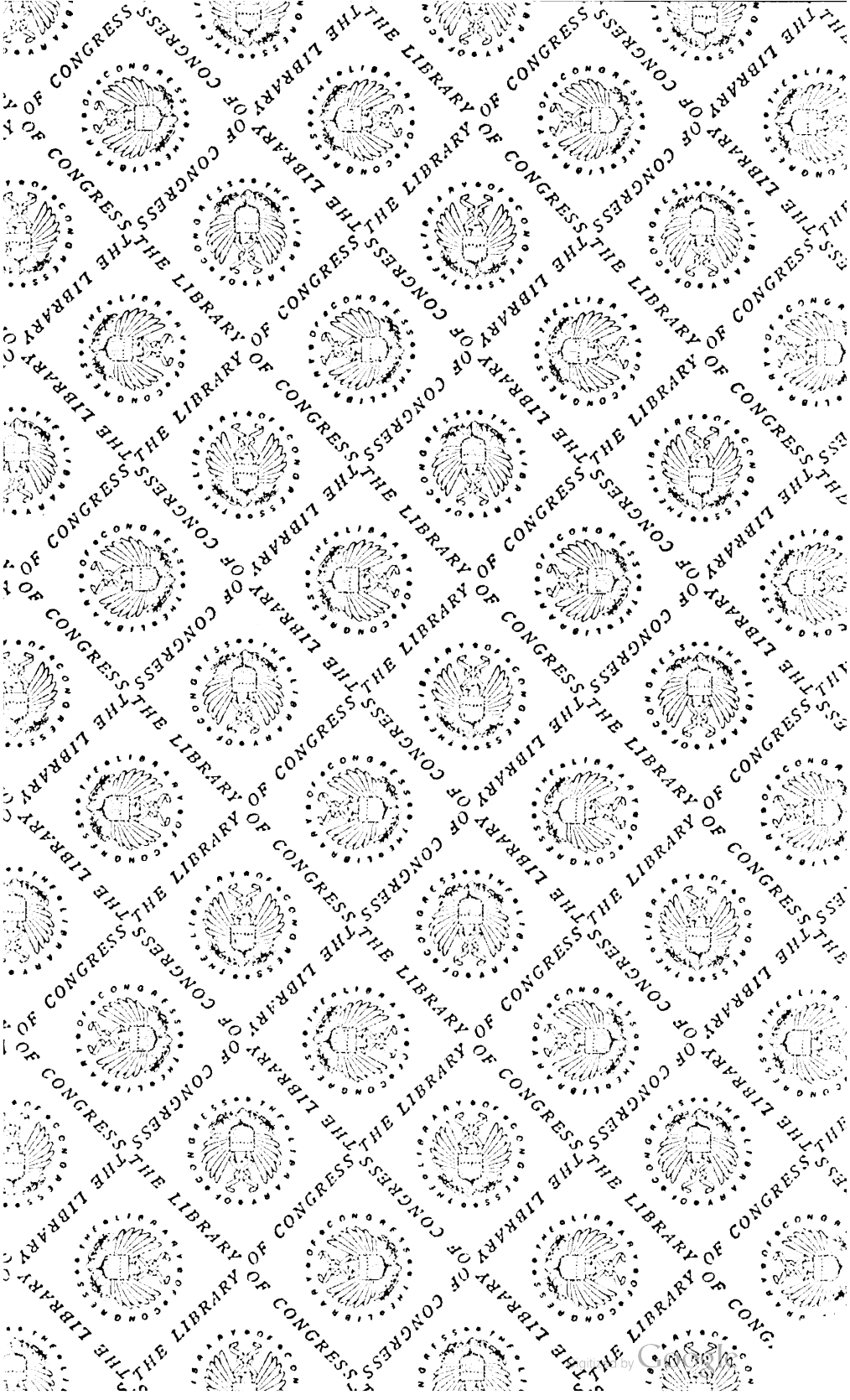
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HEARINGS

BEFORE ~~THE~~
U. S. Congress.

SUBCOMMITTEE OF HOUSE COMMITTEE ON APPROPRIATIONS

IN CHARGE OF

SUNDRY CIVIL APPROPRIATION BILL FOR 1920

RELATING TO THE

DEPARTMENT OF THE INTERIOR

SIXTY-FIFTH CONGRESS
THIRD SESSION



WASHINGTON
GOVERNMENT PRINTING OFFICE
1919

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FRIDAY, JANUARY 17, 1919.

RECLAMATION OF SWAMP LANDS.

STATEMENT OF HON. FRANKLIN K. LANE, SECRETARY OF THE INTERIOR.

(See pp. 876, 914, 956.)

Mr. BYRNES. Mr. Secretary, you have among the estimates an item for an increase to be made by the Director of the Reclamation Service of the reclamation by drainage of lands outside of existing reclamation projects, and of the reclamation and separation and cultivation of cut-over timber lands in any of the States of the United States, including personal services in the District of Columbia and elsewhere, and the purchase, maintenance, hire, and operation of motor-propelled or horse-drawn vehicles, etc., and for all other expenses, an estimate of \$1,000,000, and in that connection we have pending before the committee a bill (H. R. 13651) as follows:

[H. R. 13651, Sixty-fifth Congress, third session.]

A BILL Making an appropriation for the reclamation of swamp lands.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby appropriated, out of any money in the Treasury not otherwise appropriated, to be immediately available and to remain available until expended, the sum of \$100,000,000, to be expended under the direction of the Secretary of the Interior, for the investigation, irrigation, drainage, and development of swamp, arid, waste, and undeveloped lands for the purpose of providing employment and farms with improvements and equipment for honorably discharged soldiers, sailors, and marines of the United States, including necessary expenditures for personal services in the District of Columbia and elsewhere and the purchase, maintenance, hire, and operation of motor-propelled or horse-drawn vehicles. The lands reclaimed hereunder shall be disposed of, under general regulations approved by the Secretary of the Interior, in such manner and under such terms and conditions as shall insure the reimbursement of the investment of the United States in the same, during a term not exceeding forty years from date of entrance upon the land by the settler, together with interest from such date at four per centum per annum. The money herein appropriated shall be expended in the development of one or more projects in each of the several States, if feasible projects be found therein. The Secretary of the Interior is authorized to make any contracts or arrangements and to do any or all acts necessary in his opinion, including the disposition of public lands, the acquisition of lands or property needed for rights of way or other purposes in connection with the development of any project by purchase or condemnation, and carrying out the purposes hereof.

Mr. BYRNES. Will you please make your statement to the committee what you intend to do with that \$1,000,000 estimated, and also what you have to say with reference to the bill to which I have called our attention?

Secretary LANE. I think the \$1,000,000 bill might just as well be cut out. Some time earlier in the year I expected, as did everybody else, that the war would last for perhaps another six months, or until the middle of next summer, and that we would have time to make a more definite survey of these unused lands than we had been able to make between the time you gave us the appropriation and the present time. We accordingly thought we would take the whole problem in three steps; first, the using of the \$200,000 that you have appropriated for a general survey of the country to see what unused lands there were; second, a more particular survey under this \$1,000,000, under the assumption that that would probably be given immediately this session by you, in which event we would have time to come in and report upon that; and third, the choice of the definite propositions that you wanted taken up and the appropriation of whatever amount you saw fit for the carrying on of those projects. Now, however, the war has come to a sudden conclusion and the \$1,000,000 that was spoken of there would simply merge into the general bill you have referred to.

We want now \$100,000,000. That figure is used not because it is the proper figure in my judgement, because I think it is far too little to meet the needs of the situation, but we want a sufficient amount of money divided up among the projects that are feasible in each State in order to start one of those projects wherever possible; \$100,000,000 would cover practically all of the States in the Union, if we put \$2,000,000 into each State, but there may be some States in which there will not be any possibility of a project such as we contemplate.

I think, gentlemen, that we are going to have need of a great deal more money. I do not know whether you want to put this into your record or not, but the reports that I get from the Department of Labor and the interviews that I have had with business men and with workingmen, indicate to me that the labor market is in almost a state of collapse. I was in New York recently where I talked with a good many wholesale men and manufacturers. They say that practically no orders are coming in, although the custom in their business is for the retailer to give his orders at this time of the year for goods to be delivered six or eight months later. This is preeminently the time when the commercial traveler, the buyer for the retail house, usually comes to New York and places his orders. I talked with one man who is the head of a very large concern, and he told me that not an order had been placed with his house in 15 days. That was a great manufacturing institution.

The CHAIRMAN. What kind, would you mind saying?

Secretary LANE. Yes, boilers. And I talked with the head of another large house, a wholesale house exclusively, dealing in all kinds of goods, from toilet articles to art ware. He said their business had never been as low as at this time, and that it was due to the fact that the retailers was expecting prices to fall; that he was selling out what he had on hand, not putting any new orders in, thinking that the prices of labor and material would fall, and that the manufacturer would then be justified in giving a lower price to the wholesaler in which event the retailer would get the benefit.

There are 20,000 men in Detroit, and I think 20,000 more in Cleveland, who are out of work. The labor situation is not anywhere good.

This project, which I presented to you gentlemen of Congress and to the President last May, was intended originally to take care of the returning soldier so that he would not be a burden upon the labor market. It was not expected that we would take care of every soldier and of every man thrown out of work; that is, I had no hope that such an amount of money could be obtained from Congress as would lead to that result, but I am inclined to think that before this summer is over you are going to have a demand made upon you which you will have difficulty conscientiously in resisting for ten times the amount of money that is suggested here; and I think you will have to meet that situation in some way by providing public works. It will not do, while we are raising money to feed Europe, for us not to raise money to give employment to the men who are here.

With this \$100,000,000 we can, of course, take care of comparatively few of the soldiers that return. I have here a pamphlet that I am going to send to you to-day, giving letters from a number of the boys who are over in France or who have returned, or who are in cantonments; just such letters as have been sent to me from hundreds of other boys who have seen some mention of this proposition in the newspapers. I think you will be surprised in looking over them. I was surprised to find a very considerable number of letters from men who come from the cities where the greatest congestion is; men who have gotten a taste for outdoor life and want to continue it. There is no use in putting such men on a farm, on a piece of prairie land, on a piece of land out in the mountains of California, or the plains of Wyoming, or down in southern Colorado, and saying, "Here is 160 or 320 acres of land; go to it and make a living." They have nothing to live on; they do not know how to farm; they do not know what crops will grow there; they have nothing with which to build even a shack, nothing with which to buy tools, so that it would be simply turning a fellow loose on the desert, to ask him to take up any of our public lands.

We have about 230,000,000 acres of public lands, most of which is valueless. The larger part of it is at the top of the Rocky Mountains. There is an occasional swale, a bit of a valley where something will grow, and a good deal of it is good grazing land, which you have taken care of by providing a 640-acre homestead law. The public land that is left is practically unusable except for grazing purposes. If we are going to add to the number of farms in the United States, and I think we ought to, we must develop farms, we must take land that is to a very considerable extent in private ownership and that is unused, and put it into service.

Mr. MONDELL. Of course, in addition to that there are portions of the public domain that are susceptible of irrigation?

Secretary LANE. Yes. Although there is some difference of opinion as to the amount, it was estimated at first that approximately 15,000,000 acres of arid and semiarid land could be subjected to irrigation profitably. I think the opinion of Mr. Davis, of the Reclamation Service, is that that figure will have to be reduced somewhat;

but at any rate we have in the West a very large amount of unused public land that can be brought into very great use by having water brought upon it. In that respect, we wish to continue the work that you have already initiated, that you have supported, providing for the reclamation of these arid lands.

In the consideration of this whole problem under this bill, we have found that in practically every Western State, that is, west of western Nebraska, or perhaps west of the Missouri River, there is a practicable irrigation or drainage proposition of considerable size, and in some of the States there are a good many. There would be no trouble whatever in finding large projects in the Western States which contain public land that needs to be taken care of and brought into use. Take the Colorado River, as an instance, the Snake River as another, the Sacramento as another, the Platte River as another, the St. Marys River as another; all those rivers have water that is not used and dominate land that is also not used.

In the East we have two large bodies of land, one in the North and one in the South. In the North are the cut-over lands of Wisconsin, Michigan, Minnesota, and Maine. The lumber companies went in there under the old land laws and got hold of great tracts of land, from which they cut the timber and left the land to lie idle. That land in some places is used for grazing.

The CHAIRMAN. That is all private land?

Secretary LANE. All private land. It is used for grazing, but in the greater part it is a waste and removed from railroads. It is land that ought to be turned generally into fine farms for the support of cattle.

Mr. Hanna, of our Reclamation Service, who has charge of that particular subdivision, has made a study of that question, and I shall be glad if he could come before you and enlighten you as he has enlightened me, upon the very exceptional value of that land because of the natural fertilizer that is in it. There are many millions of acres of such land, and it can be had for very little.

Effort has been made to colonize those lands and to cultivate them. That effort, in great part, has been a failure because they have not been handled in any more scientific or reasonable way than we have handled our public lands; that is to say, they have been sold in large blocks.

Mr. GILLET. Were those sales made by States or individual companies?

Secretary LANE. They were sold by individual companies.

Mr. GILLET. I mean were those efforts made by the States or by individual companies?

Secretary LANE. The efforts have been made by individual companies. The States have not made a serious effort at land colonization in a general way so far as I can find, outside of California, which has an initial venture called the Durham Project, which is in a sense the seed from which our general colonization scheme has sprung.

If you take those lands and divide them up into small farms, sufficiently large to support adequately a family of five, and center those farms in toward the settlement in a way somewhat similar to the Mormon settlements of Utah, with the nucleus of the settlement a community in which there would be some growing life; if

you have every one of these farms connected up with that central community by a good road and by telephones, and have the central community either on a railroad or adjacent to one and connected with the railroad by a good wagon road; if you have that central community a marketing center so that the settlers can buy and sell cooperatively; if you have some of the evidences of civilization in that community, such as a good school, instead of the single-room schoolhouse that we have very generally where we pay the teacher \$40 a month and she teaches everything from the A B C's to higher algebra; if you have a moving-picture show and a good store and other evidences of community life, you will be able to do the one thing that seems to me ought to be done throughout the entire United States if we are going to maintain this as an agricultural country, and that is, make the woman contented.

Mr. MONDELL. And the boy.

Secretary LANE. And the boy. If the boy finds that the city contains things in great numbers that he can not get at home, he is going to drift off and live in a hall bedroom and work in a shop or in an office, and lose all the benefit of the early training that he has absorbed, rather than learn by direct education on the farm. We ought to keep those boys. And the woman needs something that approximates the back fence to talk over. Without it she goes insane. She becomes discontented. She reads the Sunday papers and sees how people live and what advantages they have in the cities, and she makes life unhappy for the man.

I am assuming that the man is perfectly contented, which is very far from the fact, because as we, who live in the far West know, the lure of the city is strong upon the man as well as upon the other members of the family; so that we want to center these farms into the community, have one real community, have it a working community; and that community should have in it a man who can give direction to these people.

It is a very hard thing for the farmer to cooperate. I do not know but that it is a very hard thing for anybody to cooperate, but especially so for the farmer; to have him play with his neighbors the same game; to have him learn to buy fertilizer by the carload and the advantage of it; to have him learn that he must have his eggs at a certain place, or his milk at a certain place, in order to sell them profitably; to have him chip in a few dollars to pay for a co-operative creamery; or to have him raise the standard of his hogs and of his cattle.

All of these things require a good deal of education, and so we want to have an agricultural educator in each one of these settlements, who will tell the settlers what kind of crops should be put in and how the crops should rotate in order to maintain the fertility of the soil.

We have been a spendthrift people. We have thrown away the fertility of the soil upon the theory that there was more soil beyond that that we could go to; that if this land was exhausted that land beyond could be had for the asking; and so we have simply millions and millions of acres that are entirely worn out. Of course, we know now that with legumes and natural fertilizer and artificial fertilizer,

we can save the soil and bring it up and improve it. These things must be taught, and we would have in every community a project manager who would teach these men.

The community ought to have a couple of hundred families, perhaps 150 or 200 families, and they should be brought together into the central place and live in a way a common life; that is, have a communal sense, a sense of interdependence, a sense that the interest of one was the interest of all, and help each other, and by helping each other help themselves.

I do not believe that it is impossible to overcome the tendency to move to the city. I looked up the figures some time ago and my recollection is that along in the seventies something over 75 per cent of the people in the United States lived on the farms, whereas to-day less than 50 per cent live on the farms. That is the foundation of our country. It is all well enough to make this an industrial Nation, but we can not keep machines turning out products that people will buy and lifting ourselves by the boot straps, because the man who ultimately buys is the fellow who produces something, and unless we have some element in our own country that will do the buying and produce the things on which we live, that manufacturer, that industrialist, is going to be in a bad way. There is no possibility of our leading the sort of life that England has led for the last 50 years in which she has neglected her own agriculture and turned her farms into parks, fields for golf, and relied upon Argentina and the United States and Australia for her wheat, and made the country an industrial country. We can not do that, and nobody contemplates we should do it.

The way to stop it is definitely to undertake the proposition of showing the men who have an inclination toward farming and who are willing to work hard, that they can do as well by themselves financially in the country as they can in the city, and that they can live as contented a life and have some of the advantages of the city in the country. It is a really serious proposition. It is not merely coming out of the war.

Mr. HOWARD. If it would not break the continuity of what you are saying for me to interject, you have described exactly here a colony that is in existence within 150 miles of this city, that did in embryonic stages of their formation exactly what you said ought to be done here. It is down here in Virginia. It is one of the few successful colonization schemes that has gone through in this country.

Secretary LANE. Where is it?

Mr. HOWARD. It is in Caroline County, I think, near Petersburg. They did exactly what you said here. They took this old county, that is practically a run-down county, they bought this land cheaply, and they had an agent and they cut this county up into small farms and sold them to Bohemians. They established moving-picture shows, banks, churches, and they did exactly what you said, making the community the seller, and these farms around it, and it is to-day one of the largest tax-paying rural counties in the State of Virginia. It is a colonization that I just suggest that you have one of your men interested in this scheme investigate. It is not only successful, but those people that have gone on these farms have within the last five years expended \$700,000 of their earnings in inducing their own nationality that are in cities of the United States to come into that community.

It is one of the most interesting colonization projects that I have ever investigated, and I had the man that was at the head of it come to Georgia last fall with the hope that I could get him to assist us in establishing just such a colonization in our southern part of the State near St. Marys, in a cut-over timber region, where the land, some of it, is as rich as the Valley of the Nile, and only needs drainage.

Right in that connection, with your remark, I want to call your attention to this colonization. It is a wonderful organization and it is laid out all over this county, and this county to-day is the show county of Virginia. The scheme is exactly yours.

Secretary LANE. It may be that our people have met with it. I do not know what they have seen. My attention has been called to another colony in Virginia that is a success, and that is up in the Shenandoah Valley that the Norfolk & Western Railway undertook on a similar scale, only in a very moderate way; and that has been quite successful. Then you probably know of Hugh MacRae's colony in North Carolina, near Wilmington; there he brought chiefly Hollanders and gave them only 10 acres of land, and they have had to do intensive agriculture. I have been over that recently and it is a very great success. Part of the land was deserted by the men but they are coming back to it now, and in the great number of cases the men are very well contented and doing extremely well.

I am glad you brought in that suggestion. I was saying that we must consider seriously going further with the promotion of agriculture than we have, and not merely in the line of agriculture, but in the line of seeing that the people on the land are taught how to handle themselves and their land, because we are going to be up against a very serious situation in a few years unless we take this thing in hand with some determination.

So that your central community, with guidance and advice and direction and sympathy, the establishing of social life, the establishment of proper economic connections, is a very considerable part of our whole project, but it is not all. We have these lands which nobody takes care of. I have called them "No Man's Land." Those lands ought to be made of service to the country.

Mr. MONDELL. To what extent have you considered the situation in the South? You made a statement in regard to the northern lands.

Secretary LANE. We have had a very active canvass of the South, and there are a great many million acres down there, chiefly along the coastal plain, which have been cut over, need drainage, in fact, can not be used without drainage, that are available and that will be extremely useful.

Mr. MONDELL. You realize, of course, Mr. Secretary, that a great deal of cut-over land is not probably practically available for agricultural purposes and should continue to grow forests?

Secretary LANE. Yes, or should be turned into grazing land, or partly forest and partly grazing land. That is undoubtedly true.

Mr. MONDELL. But your reference is to those areas of cut-over land, or character of cut-over lands, that have a fair soil?

Secretary LANE. Yes; we have studied the soil maps, and that has been a pretty good example.

Mr. HOWARD. Take the Okefinokee swamps in Georgia, a few million dollars would drain it and you would have a few million acres of land which would be worth twenty times any other land in Georgia.

Secretary LANE. Oh, yes; I saw in North Carolina what is marked on the map the Great Green Swamp, which you would think was something like the Dismal Swamp or worse, that you could not go into it. That was developed by some timbermen, chiefly from Minnesota, and they have taken part of it and driven a big canal through every mile, and then put in small lateral drainage canals, I think, about every 40 acres. I went into the heart of that thing, where they had cut over a lot of the land and let a fire sweep over it; then they had had a lot of boys carrying a string, as they went along, stretching out over the field, and at every pace they would take a stick and push it down 5 or 6 inches in the ground, then drop a couple of seeds of corn in. They had gone over this 200 acres in that way. I saw that land when there was corn on it 10 feet high; no plow had ever been put into it; it had never been hoed, and the bins were full of ears of corn a foot long—wonderfully productive stuff.

I fancy that the whole South has vast areas of lands like that. I know of one association down there that has 40,000,000 acres of unused, and they claim, tillable land. I went on that same trip down to South Carolina and through Georgia. I did not get a chance to stop in those States to make any examination; in fact, I did not pretend to make any real examination anywhere, but just to see what I could take in as I passed through, but I went down into southern Florida, into the Everglades. That is a country that seems to me on the whole to have been rather too much abused. I took a train at Palm Beach, then a boat and went up a canal running into Lake Okechobee. I went up perhaps 30 miles or so, when we came to a farm of 5,000 acres that was owned by a distinguished Democrat named Fingee Connors, of Buffalo, N. Y., and on that farm on the 15th day of December I picked green corn, fully ripe, probably a foot long, that had been planted on the 15th of October.

That land is, of course, just filled with the seepage of hundreds of thousands of years, and there are a million—I think it is a million and three hundred thousand or a million and one hundred thousand—acres of such land that is owned by the State of Florida. All that land has been turned over to a board which has been given plenary power, and they would put that or any portion of it that we desire at our disposal. They are willing to take our appraisement upon that land as to what it is worth for this purpose and let us develop it, and they will take their compensation for the land in the same way and at the same time that we get our compensation.

Now we propose as to compensation that when we take a man—a soldier—and put him on one of these farms, we let him have 40 years' time in which to pay back principal and interest. That will be less than 5 per cent upon the investment that we make.

Mr. HOWARD. An amortization plan?

Secretary LANE. An amortization plan. We take the boy after he has gone home and seen his folks, and say to him, "If you have a desire to be a farmer, you report at one of the following places and you can get a job." Those places will be the different settlements or projects in the different States—North Carolina, Louisiana, Texas, Wyoming, California, Illinois, Maine, or Massachusetts. "You report at any of these different places and you will get a job that will pay you good going wages. If you work you can save money, because we will give you a good place in which to live, and we will take care

of you. You can save enough money in the course of the year, digging a ditch or driving a tunnel or digging a canal, or blasting out stumps, or leveling off land, or putting up houses, to give you a sufficient amount to pay down something on a farm if at the end of that time you want to farm. If you work down in South Carolina or Georgia upon a project, you do not need to stay on that project."

The probability is if he is a South Carolinian or a Georgian he will want to stay in his own home State, and that is the reason we want to make this thing cover just as many States as possible, so that the boy will be tied by an affection to the land itself.

"But, if you do not want to stay upon that particular piece of land, or that particular project, you can go to some other project. You will find, at the end of the work, that you will have a piece of land that will be cleared of stumps, or that will be drained."

And too much emphasis can not be put on drainage. I think drainage in the United States is just as important as irrigation. The South has been cursed for 50 years not so much by the war as by its reputation for having malaria and yellow fever.

Mr. HOWARD. You are right about that; there is no question about it.

Secretary LANE. And we have got to take those lands and clean out the water so that the malaria or yellow-fever mosquito can not breed there; and we can then make those lands perfectly wholesome.

Mr. HOWARD. With an artesian well you have got your problem solved; you can get perfectly pure water.

Secretary LANE. Yes, we can get perfectly pure water on the projects. Now, I think we can say to this boy:

"Take up your place and your place will be a going concern." It will be not merely a piece of barren land, which a man has to convert into a farm, but this piece of land that this boy has worked upon or that his mates have worked upon, we prepare it, drain it, break it, fence it, put a decent house upon it, a house that has a bathroom in it, we put a barn on it, give him the necessary tools, arrange so that he can borrow money if necessary to put in some cattle or some sheep, to put in some hens, and have this thing ready so that we can say to that boy, who in the meantime has been taking some education in agriculture, and we can arrange for that easily—Canada is doing that even in France to-day—we can say to that boy: "Here is a farm; here are the kinds of crops to plant; here are the things that this land will raise, alfalfa, or peanuts, or whatever it may be." This land is already broken and there is probably a crop on it already, so that he will not have to go through the hell that the pioneer has to go through.

Now, that young man goes on to that farm; the farm is near to this little community; it is in a place where he can get a daily paper; where he has telephonic connection with his neighbor; where he can have good school facilities for his children; where his wife can go to a decent store; where there is a moving-picture place; the roads will be good enough for him to run an automobile over them; where he can have a rural express from one place to another. Those things are developing all over the country. I do not know whether you gentlemen have noted that or not, but during the war we have promoted a tremendous amount of that kind of thing. So that he will feel he is not out of the world, that he is not merely taking a gamble upon the increase in the value of his land by reason of unearned increment.

And that is what most of our people in the West have gone in for, not so much for the home as for the fact that if they got 160 acres they could take that land at \$1.25 an acre and find it worth \$50 or \$75 an acre after a while, and move out.

Mr. GILLETT. What is going to prevent the same human nature in manifesting itself in this respect?

Secretary LANE. I think in one way we could safeguard against that. This bill is drawn in very general terms with broad powers given to the Secretary of the Interior, under which I think it ought to be his duty, though it is not stated, and it should not be stated there, to adopt rules and regulations and provisions in the contract that will guard against such things.

We ought to make the farm large enough for the man to support his family and support his family well on it, but not large enough for him to make a speculation out of it. In some cases 40 acres would be enough, in other cases 80 acres would not be a bit too much. Then we ought to provide that no man should have more than two of those farms. No man in the State could have more than double that amount of land, so that we would keep these opportunities for these men, or this class of men, who are poor men and who need help, so that no banker from the city could go out with a little money and buy these farms up, because he would not get hold of more than two, even were he permitted to, so that no large cattleman and no farmer with a lust for land could get hold of them.

I would limit the farming somehow; I would make the man live on there five years; I would reserve to the United States the right to buy the land.

Mr. GILLETT. How would you make him live there five years if he did not want to?

Secretary LANE. You can not. I mean in order to perfect his title.

Mr. BYRNES. That is the way you would arrive at it?

Secretary LANE. Yes.

Mr. BYRNES. That would be one of the conditions of the contract?

Secretary LANE. Yes.

Mr. BYRNES. And your contract would be what?

Secretary LANE. My contract would be that that man should go on and pay. I think a reasonable figure would be 10 per cent in advance. We estimate that these farms will cost, improved, between \$4,000 and \$5,000 a piece, and that a man would pay perhaps \$400 or \$500 down.

Mr. GILLETT. Where would he get it?

Secretary LANE. By working on the project. You see he makes his own farm, and he would work on it, and we would give him decent wages. He can save enough for the first payment if he is thrifty at all, and we would not want him if he was not.

There ought to be a little latitude there. We ought not to be forced to take any fellow who did not have any aptitude for this thing and who did not show the slightest desire to be a farmer, but simply wanted to grab hold of one of these farms. That would be a very hard thing to do, and we can not put into a law anything of that kind. You can not pass through the House of Representatives a law saying that only a certain class of soldiers should go on these projects, but I think there ought to be some kind of latitude,

so that if a fellow is not being square with us we do not have to let him stay on there and hold the farm indefinitely.

Mr. GILLETT. Of course the work of improving a project is not fitting him at all for a farmer's life?

Secretary LANE. Let me answer first that question that Mr. Byrnes put. We propose to give him 40 years' time. He makes his initial payment, then at the end of another year, he pays perhaps \$100, and that would be his full payment for each of the 40 years. The only way that we know of, by which you can take from that man the unearned increment, would be by some sort of taxation scheme. I do not think that is wise, because that would be a discrimination against this particular land. No matter what you may feel regarding taxation schemes, the single tax or anything of that kind, as a means of taking away the socially added increment of the land, if we put down in South Carolina a group of soldiers, and took from them the increment of their land while it was not taken from their neighbors, they would be justified in feeling a bit of rebellion, I think, against the discrimination against them.

Mr. HOWARD. Is not this situation analogous to the land-bank proposition, the Government of the United States in this particular instance simply takes the place of the land mortgage bank. You carry this loan?

Secretary LANE. Yes.

Mr. HOWARD. For a period of 40 years instead of 32 years, say. Now, could not the Government save directly by appropriations in large sums by letting this particular soldier finance himself to the extent of 50 per cent through the land mortgage banks in the particular States in which the farms are located?

Secretary LANE. After he gets on there.

Mr. HOWARD. That is what I say.

Secretary LANE. After he gets on there we hope to be able to subordinate our lien, or make it run concurrently with a loan from the farm loan bank, by which, under proper supervision, he could get money that would go into actual things, such as cattle and sheep and hogs, and perhaps increment, so that you could keep an eye on him and see what kind of use he makes of the money.

Mr. BYRNES. In response to the question of Mr. Gillett, as to how you would ascertain the aptitude of the men for agriculture, what have you to say?

Secretary LANE. We can not ascertain that definitely. We can tell whether the man is a good hard worker or not, whether he does his task, and we can give him all the education that a man can be given. We want to get into close cooperation with the State agricultural colleges, in which generally they have very good men. These men are generally familiar with the character of the soil of the different sections of the State, and generally the State would put at our service a man who would be very helpful in giving an education to these men.

You know in France they have a very interesting plan. Before the war they had what they called the Vimy Ridge Agricultural School, which was a school conducted by agriculturists, both theoretical and practical, who are in the Canadian Army. A long time ago—I think perhaps three years ago—Canada passed a law by which a man could take up 160 acres of their public lands and get \$2,500 bonus from the

Federal Government; in some of the Provinces he gets \$500 additional, \$3,000 and 160 acres, and then there is another provision by which he can get later another 160 acres. So in contemplation of the boys going on these farms these men who are interested in agricultural development in Canada started up this Vimy Ridge Agricultural School and held that school behind the lines. I saw the original of a letter written by a Canadian who had been the judge at a cattle show while the guns were booming in the distance. They had held this agricultural school in the rear if the lines, and had gathered in different types of cattle and stimulated the farmers to bring them in, and these farmers from the West had passed upon these different cattle that the Frenchmen had, the hogs and other animals, and the different kinds of crops, and taught the boys, who were in the reserves, what kind of cattle these were and how they were cared for, and so on.

Now, we ought to do that on the other side with the boys who are to be held over there, if any are to be held over there any length of time; but we can do it on each particular project when the boys come there. We can very easily and in a very entertaining way, with moving pictures and by illustrations in the neighborhood, show these fellows how agriculture is carried on.

A great many of these men will be the sons of men who are farmers in a very small way or the sons of tenant farmers.

I am a little bit familiar with some of the fellows who have gone into the Walter Reed Hospital and I find the deepest interest on the part of those fellows. They invited me out to speak upon this subject some time ago. The deepest interest was exhibited by them in this proposition, and I talked with some individually. One of them said to me, "My father is a tenant farmer in southern Illinois. He has never had enough money to get a farm of his own." He said, "I know farming; I was on a farm until I got into the war, and I would be almighty proud to be able to work a while and get hold of a farm that I could take my father on, and that we could feel was our own farm and work for ourselves."

There is no reason, I believe, why a man can not make a living on a farm if he gets a good start.

Mr. GILLET. If he knows enough; if he has the education.

Secretary LANE. I think some education is necessary and some continuing advice is necessary, and a great deal of leading is necessary. Here is a man right here in the room who can tell you about that. He has taken the raw stuff and made farmers out of them.

Mr. MONDELL. And much hard work and close application is also necessary.

Secretary LANE. Yes; a good deal of hard work; yet it is not harder work, I suppose, than most men put into some other kind of industry, out of which they do not get as much as they would get here, because here they would be getting a living.

Those men down on Hugh MacRae's place in North Carolina surprised me. There was one man there who was the manager of a laundry in Jersey City or Newark who estimated that after being there six years he had made his living and had \$8,000 in capital stowed away. And that man had started in on 10 acres of land and added 10 acres more to his place.

We have got a scheme working very well in California, having in this tract small blocks of land, from two to four acres of land, which

are called Laborers' allotments. There are a great many men in the United States who never want to make their own living off their own backs, who do not want to manage themselves, who would rather work for wages. Those men are perfectly willing to till a little bit of land, to keep a cow, have a chicken yard and a garden patch. We provided for these men by having in this village a few of these lots upon which there can be men who will be attached to the place, who have these little allotments. Mr. Mead, who will come before you later, I trust, rather surprised me by telling me of a man out in Durham, Cal., who had saved up as a laborer \$4,000, and yet that man will not go in and buy a farm. He took one of these little allotments and still continued to work for wages.

Mr. GILLETT. You mean he ran that in his extra time?

Secretary LANE. He works for wages and does this on extra time.

Mr. GILLETT. Where does he get the extra time?

Secretary LANE. There are millions of people in the United States doing that.

Mr. CANNON. Would you not meet the same difficulties as you would in California?

Secretary LANE. No; and I do not think you can judge any settlement proposition by any single instance, but if a scheme is reasonable, if a plan appeals to you as a thing that will work, and you have some illustrations of where it does work, then it ought certainly to be given the benefit of the doubt, and especially if it does not cost you a great deal to do it.

Mr. BYRNES. In your plan you propose that wherever a returning soldier indicates a desire to work upon a farm in his own State, he should be allowed that preference?

Secretary LANE. Yes.

Mr. BYRNES. How do you propose to arrive at the soldier who will be entitled to enter upon one of these farms included in the project?

Secretary LANE. I think we shall have to make that very broad, and unless there is some particular reason why that man should not go on the project, I think we will have to let the soldier go on.

Mr. BYRNES. Will you ask that he make some showing that he has had some previous experience on a farm?

Secretary LANE. No. I do not think we can do that, but I think we shall have to ask that he take some instruction in farming, practical and theoretical, and that he show energy and some degree of aptitude for it.

Mr. BYRNES. What indication have you had from returning soldiers that they desire this assistance from the Government?

Secretary LANE. The only evidence that I have is the volume of letters that I get, the amount of interest that was taken in the newspapers. Here are extracts from some of the letters published in this little pamphlet that I will send to you gentlemen, from all States, and from all parts of the country, and from men in France, in which they say that they would like very much to get greater detail as to this thing.

Mr. MONDELL. Mr. Secretary, in allotting lands under these projects, it will be necessary, of course, for you, or whoever manages the enterprise, to have discretion in the matter of granting allotments, assuming that the demand for allotments be greater than

the supply. You would first give the preference to the returning soldier, would you?

Secretary LANE. Yes; and secondly, I would give the preference to the man who had worked upon the projects, the man who had helped to create this value.

Mr. HOWARD. He would be a soldier?

Secretary LANE. He would be a soldier.

Mr. MONDELL. And you would want to have the opportunity to exercise discretion in choice even among those men, the man who showed aptitude and who, in the opinion of some one who would pass upon that question, would be most likely to succeed?

Secretary LANE. I think that ought to be allowed for the sake of the man himself. It might be that it will not be necessary, but it seems to me that it is unwise for a man to take up a farm if he is not energetic or if he is not willing to put in the time to study upon these propositions.

The CHAIRMAN. Does your scheme contemplate any contribution on the part of the individual?

Secretary LANE. Yes; an initial payment on the part of the individual of 10 per cent. of the cost of the project.

The CHAIRMAN. If he is willing to make an initial payment, why should he not be given an opportunity to go forward, and then if he fails in subsequent payments, you treat him like any other person who defaults on an undertaking?

Secretary LANE. Mr. Shirley, I really have got no answer to make to that proposition. It seems to me that is a fair thing to do.

The CHAIRMAN. May it not only be a fair thing, but relieve the Government from a thing which is calculated to breed very great abuses, and even if it did not breed abuses, it unquestionably would breed criticism?

Secretary LANE. Yes.

The CHAIRMAN. Whenever you get the Government undertaking to pass upon the qualifications of a man you are never going to get satisfaction from the man who is rejected, whether the facts warrant his rejection or not?

Secretary LANE. Yes; that is so.

The CHAIRMAN. You immediately throw your program into a political foment with the agitation that always grows out of action by a department that can be characterized as arbitrary, whether, in point of fact, it be so or not.

Secretary LANE. Yes, that is true.

Mr. MONDELL. However that might be, you still adhere to your view that at least there should be a preference to the soldier?

Secretary LANE. Indeed, I do. I would make it exclusively for the soldier at first.

Mr. MONDELL. Would you confine your applications exclusively to soldiers?

Secretary LANE. I would at first; soldiers and sailors.

Mr. MONDELL. If you were not to follow the plan of selection, you probably would have to follow the plan you now do in regard to the public lands and reclamation projects when you have an opening, of holding a lottery of some sort and allotting the tracts at a drawing to any man who was able to meet the conditions.

Secretary LANE. If there were many more than there were farms for.

Mr. BYRNES. You propose to establish, so far as possible, one project in each State?

Secretary LANE. Yes. We have, I suppose, three or four possible projects that are suggested in each State. We would select the one that was best, that had the best soil, that was nearest to the railroad and otherwise available.

Mr. BYRNES. Where you have no public land that could be secured for this purpose, do you propose to secure private land for the purpose of establishing these colonies.

Secretary LANE. In all States I am familiar with, and I can not tell you as to all of them, others whom you may choose to call can tell you in detail about that—in all States I am familiar with, land-owners have said, "Here is a body of land that has been cut over but needs drainage; we have not the money to do anything with it, and we do not know how to do anything with it. We will turn over that land to you for development; you fix your appraisalment upon that land, \$5, \$6, \$7, or \$8 an acre, perhaps; you select the land and fix the appraisalment upon it. We will not ask the Government to pay us a cent, but that land will be turned over as a farm to the soldier, and the soldier will pay us back in precisely the way he pays you back, in 40 years' time."

The CHAIRMAN. In that same connection have you ever considered the fact that there is in this country a great deal of land that is not cultivated, which is neither cut over nor needs drainage nor irrigation, but which is not farmed, sometimes for no reason in the world, and sometimes for reasons that are hard to determine? There is within a small radius of this capital a great deal of land that could be cultivated and perhaps is not now cultivated simply because there is no incentive whereby groups of men can be brought in with the capital necessary to initially put into the thing that might present, not only from the standpoint of economy of investment by the Government, but from the standpoint of nearness to market, a favorable proposition, and therefore return after cultivation was undertaken a very much better program than that of reclamation, whether the reclamation be by drainage or by irrigation, or cut-over lands, or what not.

Secretary LANE. I am very familiar with that land, and what you say is true. My general impression about that land is that it falls into two classes, either land that might be called abandoned farms or land that needs some kind of reclamation. For instance, I was down on the Potomac River three or four years ago trying to shoot a wild turkey, and I traveled over a great deal of that land, and most of that is abandoned farms, but most of it needs drainage.

Now, around Ogden, in New York, they have a great many thousands of acres of land which is extremely rich land, good land, land which makes good farms, on which there are good houses standing to-day, and yet it is forsaken and uncultivated. The same thing is true in central Massachusetts; the same thing is true to some extent up in Maine. The call of the West has taken some of these men away.

I remember once making a series of speeches up there, and after every meeting some woman would come up to me in the little town, and say, "Did you know my brother Tom or Harry out West?" But there are some places there where the land has been so productive that people have retired from farming and moved to the city in the

same way that a great body of Iowa farmers have been so successful that there are now 80,000 members of the Iowa society in Los Angeles County.

I think we might very well group together those cases where the land has been idle for years and yet where there have proved to be good lands; we might very well in such cases take a body of those lands and deal with them on this settlement scheme and cut them up into small farms and give those men in those States a chance at them.

Mr. MONDELL. Do you think, Mr. Secretary, there are any such lands in New York and New England which are really fertile in their present condition?

Secretary LANE. I am told that there are. Mr. Bailey says that there are lands of that kind up there.

The CHAIRMAN. What do you expect to be the cost, irrespective of whether it recoups itself subsequently, in making these various cut-over lands and lands that need drainage and lands that need irrigation available for cultivation per acre.

Secretary LANE. We can not figure it on the acre basis because there is a different acreage unit for each particular project, and different acreage units in the different projects, but for a farm we figure between \$4,000 and \$5,000.

The CHAIRMAN. How many acres do you average?

Secretary LANE. From 40 to 80 acres, dependent upon the kind of land.

The CHAIRMAN. At \$4,000, 40 acres would be \$100 an acre?

Secretary LANE. Yes, sir.

The CHAIRMAN. Do you know any land that is cultivated and is worn out that you can not take and put \$100 per acre on it and get pretty good land out of it?

Secretary LANE. This includes, you see, your cottage, it includes the fencing, the barn, and includes—

The CHAIRMAN. What I am struck with, and I was struck with it in my trip over the irrigation areas, that the same amount of investment as to many of the projects in regard to land that is now not cultivated because men have been drawn away from it, either to the cities, or to land that they thought was more fertile, or otherwise, would make that land equally as valuable as land with the advantage that you would not have to create a market. The trouble with some of your reclaimed lands is that you raise all the crops you want to, and after you raise the crops you get nothing for them. I saw alfalfa raised with 6 and 8 and 10 cuttings, and was told the price it brought was so low that it did not give the farmer as much money as two cuttings would give in many other localities, because there was not the population, there was not the transportation, there was not the reason for that agricultural development.

Secretary LANE. That probably was on the Truckee-Carson project. That would be a good illustration of it, and that is why we should select these things with reference to the markets.

One of the reasons the Truckee-Carson project has not been the success it ought to have been is because when we gave a man the land, we said: "Here, we will give you 160 acres of land; come on and homestead it, and we will turn the water right to the edge of your land." That is not giving a man anything. It costs \$50 an

acre to level that land. He has got to be a rich man before he goes on it. I saw man after man out there who worked from 5 o'clock in the morning until 9 o'clock at night to get enough to support his family and a little bit ahead, so that he could clear and grade his own land, so that the water would flow on it.

The CHAIRMAN. But even assuming you furnished him the money to grade it and clear it, could you not take that same money and get other land in the coutry where people are——

Secretary LANE (interposing). I think so, in some cases.

The CHAIRMAN. The most valuable asset of any place on earth is the people, is it not?

Secretary LANE. I think so, in many cases. If I were on the Truckee-Carson project, if it were my own scheme, I would say to these men: "Yes, we will put in gang plows; we will fix up your land; we will level it off; take care of it; we will charge it up to you; and you put it in alfalfa and we will then provide you with the cattle and the sheep that will feed on that project." I was on the Truckee-Carson project. It makes you sick to go on some of those places. That was five years ago. It may not be the same now, but then they were selling their alfalfa at \$5.50 a ton. If they had had money enough to buy cattle, or if the banks had been willing to loan them the money to buy cattle, they could have turned that alfalfa into beef and made a ton of hay worth \$12.

That was a disadvantageously placed project, and most of our projects are not like that, and that is one of the things that we would particularly guard against in selecting these projects.

The CHAIRMAN. What you are going to find will be the pressure that will come to take very large areas, which means that you will go into sparsely settled communities, whereas the real economic development that needs to be made in this country, not only from the standpoint of food, but of transportation, is in the use of land near populated centers that are not being used.

Secretary LANE. You are absolutely right; there is no question about it.

Mr. HOWARD. The curse of the South, as you know, has been land tenants, where men come in there and buy up enormous tracts of land for speculative purposes and hold it and rent those lands out, for the purpose of making them pay the tax, to irresponsible people who wear out the land and never put anything on it.

Secretary LANE. And move off.

Mr. HOWARD. Yes; that is the actual condition in the South. Now, there are 100,000 acres of land just as Mr. Sherley described all over Georgia; farm after farm you can pass without a single soul on it to-day; land cleared, land that would be productive under intelligent cultivation, yet you can not buy that land from these speculators at a reasonable rate. That is the curse of our section of the country to-day.

Secretary LANE. And we do not want, of course, to take land that is absolutely valueless to-day, exhausted, and say to these soldier boys who come back: "We are going to give you this land that other fellows have thrown away."

Mr. BYRNES. Do you hope to secure any such project as you have heretofore described in the northeastern States?

Secretary LANE. Well, some of my people have been up in Massachusetts, and I have had a talk with the commissioner of agriculture from that State, and they tell me there are two possibilities in Massachusetts that look very well; one of them, singularly enough, is at Cape Cod, where men have taken up some of that sandy land back of old Plymouth Rock and have been extremely successful with it. Another of the projects is over near Springfield, where they had a meeting last week, I think, and demonstrated the possibility of something being done there. I think Mr. Gillett was up there, were you not?

Mr. GILLETT. Yes.

Mr. CANNON. You have got about 110,000,000 people in this country; you have multiplied the population by three since the beginning, and I was going to say substantially since the end of the Civil War. Lands in Illinois have cost us \$25 an acre to drain, and we drained them because there was a profit in doing so. We produce products now, and we ship them to the seaboard at a profit, and you can go down here in Chester County, Pa., within a stone's throw, figuratively speaking, of Philadelphia, not far off from New York, and you can go down there and buy those lands much cheaper than you can buy them in the West. Now you have got territory enough when fully developed, as it is in Europe, to support a population of from six hundred to eight hundred million people, with Mexico to the South and Canada to the North. Do you believe that with the Government changing every four or eight years, and in working out these problems by governmental employees for direction, that it is at all practicable to enter upon a policy, in the condition of our Treasury and what we owe, which, when worked out would cost two or three dollars to where an individual who has the knowledge and can hold on to work out these problems as cheaply over cut-over lands or the abandoned lands in New York or New England, would we not be in purgatory or seeking some escape from purgatory inside of a decade if you adopted that policy?

Secretary LANE. No, I do not think so. I think that you will find, Mr. Cannon, if you live 10 years longer, and I hope you will, that just this kind of a scheme will have to be adopted if you are going to develop any lands in Pennsylvania at all that will make up such a project as we propose.

Mr. CANNON. Yet you can buy Chester County lands now for one-half of what you can buy them in central Illinois.

Secretary LANE. That may be because of the extreme fertility of Illinois lands, and of course you must remember, Mr. Cannon, that you have got a preferential freight rate on wheat from Illinois and on corn, which you of course would not acknowledge, and it has been extremely beneficial for that central Middle West, and against nearby lands.

Mr. CANNON. To illustrate further what I mean: I have very great respect for you, Mr. Secretary, your personality, your ability, but in the nature of things you will die sometime in the next 40 years, and you will not be Secretary of the Interior to exceed a decade longer. God knows who will be and who will take charge of all these things. The personnel would change at least once in a decade; in the meantime farming requires experts. You can make a machinist out of a man; or a railroad man out of a man in one-half the time that you can make a farmer out of him.

Secretary LANE. Is not this perhaps a solution there? In all these departments the head of the department is simply a coordinating force. He outlines the policies, but the administration of the department is centralized in the bureaus, which change slightly. I suppose the personnel of my department, and I have approximately 25,000 men, did not change one-tenth of 1 per cent when I came into office. All I can do is to give stimulus to these men. Take the Reclamation Service, I do not know what Mr. Davis's politics are, but he probably would remain no matter what might become of me, and he would be the guiding hand of the men with him who would carry on this work.

Do not forget that you have got in the Middle West a pretty bad labor situation, and you are going to have a worse one, and you do not want these boys floating around. You ought to give them something to do. That is a very serious problem, and it is going to be more serious in 90 days, and the Congress of the United States ought to take it in hand and liberally provide occupation for these men. The occupation I want is an occupation that will produce something, as every occupation should, but you ought to do something in the matter of a remedy, and it ought to be something within a decade, and something in this matter of farms, and you ought to have a reserve, so that Congress can say it is taking care in advance of the problems which it thinks likely to arise.

Mr. MONDELL. Mr. Secretary, as I understand it, your thought is, first, that we should do something to afford additional home-owning opportunities to the men who have been in the service, but in the doing of that we do the very beneficial thing of increasing the productivity of the country and reclaiming the waste places, and that we also furnish employment, or some additional employment, at this particular time. Now, as to that last proposition, the difficulty of employment now and the difficulty that is going to confront us in the near future seems to be more one of distribution, possibly, than of actual lack of demand for labor. As you utilize this kind of employment for the development of lands, taking the latter view of the situation, it is hardly to be hoped, is it, that we can give employment to men at the very high wages that have been paid in connection with war industries?

Secretary LANE. No; it is not expected that you will be able to compete with them, and of course one of the things that I think you touched on was the fact that men who have been getting \$7 and \$8 a day in the shipyards can not very quickly adjust themselves to going on farms where they will get \$3.50 or \$4 a day, perhaps at the most; it takes a little time for them to realize that these very good days are not indefinitely to continue. But these men I was talking about on the Norfolk & Western told me their men had gone off, many of them, to shipyards and to munitions works, and had made \$8 to \$10 a day, and now they were coming back to the farm. There was one place that was home, where they were sure of a good living.

I would like to see a great many more men in just that fix in the United States. I am not at all afraid of giving men a piece of land on which to work and where they will be tied up with the soil, and letting them go off and work when good times come, and then come back to the land. I think that is pretty nearly an ideal condition.

Every lawyer that I have ever known personally had that sort of a dream in his own head. I have 18 acres of land out in California that I hope some time to go on myself as a place of refuge where I will be able to get a living when politics and law peter out.

Mr. MONDELL. We can not hope, of course, through governmental agencies or governmental expenditures, to bring about the reclamation or preparation for settlement of all, or of any very large proportion, of the lands that are not now fit for homes.

Secretary LANE. I am glad you raised that point. That is true. I did not speak of that. This thing is only a bite of the cherry, of the apple, and a small bite. We want to cultivate the idea of doing the thing this way, and show that it can be done this way, and then I think the States, and probably some of the large owners will undertake to do the thing in imitation of the way in which we do it, and that will lead to a larger, an infinitely larger development.

Mr. MONDELL. I regret to say that I have not so much faith in the activities of the States, because the States show an increase in disposition to throw such burdens as this on the Federal Government; but it is your hope, no doubt, that this kind of work, undertaken by the Federal Government, will at least encourage even the States, and that at any rate it will lead to the adoption of similar methods by those who now own and control parcels of land.

Secretary LANE. Precisely so.

Mr. MONDELL. You think it will have a helpful influence in that direction?

Secretary LANE. I do. I think it will be the greatest possible promotion for that movement.

Mr. HOWARD. Have you thought of the proposition as to how far the Federal aid on public highway works would aid in this work, and in what manner the States should be requested to cooperate?

Secretary LANE. I have not thought of that particularly. Of course, I understand that the highway act is largely for what we call trunk lines, and we will try to get land that will be along that general line. Our road building—and we would have to do a very great deal—would be radiating country roads that would go off into these farms, and of course those two things could be made to work together.

Mr. HOWARD. Accessibility to market, of course, is paramount in all these schemes?

Secretary LANE. Absolutely.

Mr. BYRNES. One thing that you have not touched upon, and I think it is useless here to do so, but I would ask you, in revising your statement, that you include a short statement as to what other countries do along this line.

Secretary LANE. I will have an analysis made of those laws and show you just what those countries have done.

Mr. HOWARD. New Zealand, I believe, is a shining light.

Secretary LANE. I am told that if we appropriated in the same proportion as Australia has appropriated for this very thing, our appropriation would be \$4,000,000,000.

Mr. MONDELL. If we made the same appropriation in proportion to our wealth and population?

Secretary LANE. Yes.

Mr. BYRNES. Your idea is that if this proposition is regarded favorably by the committee, that you would need at least \$100,000,000 to inaugurate it?

Secretary LANE. I would make it very much larger myself if I were controlling in the matter.

Mr. BYRNES. What organization would you entrust with the expenditure of this fund and the establishment of these projects?

Secretary LANE. I would want it put into my hands and I would use the bureaus of the department, chiefly the Reclamation Service, using the Geological Survey and the Land Office wherever I could.

Mr. BYRNES. Could you with that organization engage in this work in the immediate future so that it would be of any service to returning soldiers?

Secretary LANE. Oh, yes; you see they have in the Reclamation Service a plan of organization that we have developed in 16 years, and that is available now.

Mr. BYRNES. As a result of the survey made during the past year, have you drawn up any plan for that organization which would enable you to commence work at an early day?

Secretary LANE. We have not been able to say to anybody that we were going to do anything. That has been one of our great embarrassments; so we have not been able to deal with personnel at all, but so far as the general plan is concerned we have in our heads the general idea as to what organization would be necessary.

We will undertake this thing in large blocks, dividing the country into sections, and then putting into each State where we have a project a definite plan and having a certain specified organization under each man.

Mr. HOWARD. As I understand it, the accruing benefit to the soldier is the fact that in the development of these very projects you give a soldier employment immediately upon his return, so that it is necessary to have the farm ready for the soldier to enter on it as a farmer?

Secretary LANE. Oh, not at all; but we have got to get men who will be able to boss that soldier and tell him where to go to work.

Mr. MONDELL. Of course you do not know to what extent the returning soldier will care to take up this line of employment.

Secretary LANE. Mr. Mondell, if \$100,000,000 were given, and it cost \$4,000 for a farm, you see it would only take care of 25,000 of them. I think we ought to have three hundred or four hundred million.

Mr. BYRNES. And your idea is if the purpose you have in mind is to be achieved that legislation of this character should certainly be passed at this session in order to benefit the returning soldier?

Secretary LANE. You can not pass it too soon, for one reason if for no other, and that is for the morale of the men, to show them that the United States Government is still interested in them. I have letters from boys that indicate clearly the idea, "You got us to go over there and fight; you drafted us; you took us out of our jobs; we went over there and risked our lives; we come back; we do not find the old job; what are you going to do for us? Are we simply to be thrown in the dump?"

Mr. BYRNES. And if the Government, in response to that question, engaged in the extraordinary building of public buildings in cities, it

would bring these boys to the cities and add to the congestion instead of relieving the situation.

Secretary LANE. Yes; you are not going to get any overwhelming percentage of these boys to go to the country, although you will get a good many more than were in the country, to begin with, in my judgment, like my own son who started in the study of law, but abandoned it and wants to go out in the West to some nonoffice position.

Mr. BYRNES. Have you any suggestion to make as to whether Mr. Davis, or anybody else, should be heard upon this?

Secretary LANE. I should like very much for you to hear Mr. Davis and if you would hear Mr. Mead. We have two other engineers, Mr. Cory and Mr. Hanna, who have been in the South and in the North, who can give you detailed information and are very familiar with those sections of the country, and Mr. Watson from the Middle West, who has made an experiment of his own, but of this kind—taking other men and making them successful on farms; and there may be others.

(Secretary Lane submitted the following statement, as requested by Mr. Byrnes, regarding what other countries are doing in this connection:)

SUMMARY OF SOLDIER SETTLEMENTS IN ENGLISH-SPEAKING COUNTRIES.

Legislation, administration, and appropriations.—All English-speaking countries except the United States have passed special soldier settlement legislation and made appropriations therefor. Where good free land exists this is offered the soldier, but even when such exists he is usually given assistance in the individual purchase of private land, or such private land is purchased by the State in blocks. In countries like England, New Zealand, Victoria, and New South Wales it is largely a question of resuming land.

When land-settlement boards do not already exist they have had to be created, except in the case of Ontario and some of the other Canadian Provinces, which are using their minister of lands, their agricultural, and forestry departments for this purpose.

Handling applications and placing soldiers is largely decentralized and in the hands of voluntary local committees.

The English and Canadian method of settlement is to establish central farms on which to try out crops, to employ and train settlers, stock them with animals and implements for the use of the settlers, and about these farms to lay out farm blocks of varying dimensions. The Australian plan is to follow the policy of closer settlement already laid down and so successfully prosecuted.

Explicit data concerning total appropriations are not available. The usual method is to start the work with a small appropriation and to add to it as required. In the case of Canadian Provinces and the Dominion, funds come from an appropriation for general development, probably derived from taxation; in England it is a disbursement from the treasury; in New Zealand and Australia the funds are derived wholly from the sale of bonds in the London market.

Respective spheres of State and Federal action.—In the two countries where a Federal Government exists, namely, Canada and Australia, tentative steps have been taken toward working out a cooperative plan the general nature of which is for the general government to supply the funds for loan advances and for the States to supply the land and to supervise its division, and maybe control. A general board has been appointed in each case and on which each of the States or Provinces is represented. Undoubtedly when the period of demobilization approaches this plan in the case of Canada and Australia will be carried out in great detail.

Kind and amount of aid.—Aid to the soldier takes a variety of forms. There are, first, the allowances which are given a soldier for himself and family in the probationary period of working and beginning of experience; under this head might be mentioned transportation which all of the countries offer the soldiers when they are traveling to training stations or to the land; second, either the giving of land or the

pricing it to the soldier at the cost of purchase and subdivision; third, the supplying of advice, guidance, and instructions by all countries; fourth, the supply of grading, farm tools and sometimes farm animals free or at cost (under this head may be mentioned the supply of seeds and fertilizers); fifth, credit advances for the taking up of mortgages and incumbrances, for clearing, leveling, and ditching of lands, for erection of fences, buildings, barns, and houses, for the building of homes; sixth, assistance in the organizations of co-operative buying and selling associations and the giving of whatever aid the State governments ought to give in this direction.

In every instance the payments for the purchase of the land or for the reimbursement to the State for advances are stretched over a long period of time. The period of payment varies from 20 years, as in the case of Ontario, to 36½ years, which is the case in the Australian States. Advances for stock and developments are repayable in from 10 to 25 years. The interest charged is seldom more than ½ cent more than the interest paid on public securities.

Types of land tenure.—In Canada freehold rights prevail. In England the perpetual lease predominates. In New Zealand both the lease and the freehold are given. In Australia some of the States, such as New South Wales, South Australia, and Queensland, do not give a freehold title. The occupier pays a rent of about 1½ per cent of the capital value of the land and receives a perpetual lease which is inheritable and, under certain restrictions, transferable. The other States offer a freehold title or a lease. The Governments of all these countries are not inclined to part with their grazing lands or lands that are suitable for further subdivisions. They are usually leased for short or long terms.

In nearly all cases, while the soldier is not legally required to maintain a residence, he can not lease his land or transfer it within a stated period, and he can not meet his payments on the advances received unless he is giving his whole attention to his land. Residence, therefore, is practically assured.

Selection and training of soldiers.—The selection of soldiers and the advice they receive is largely in the hands of local committees in the case of Canada, England, and Australia. Such local committees are usually expected to give their advice in the selection of lands to be purchased by the State.

Some training of the soldier in agriculture and some practical farm experience is always expected. Such training and experience are obtainable from three sources: Employment on farms, from agricultural colleges, or from farms associated with the colony enterprise.

Progress of soldier settlements.—The legislative acts in all countries are practically complete. The organization for the administration of the acts is largely completed. Some private lands have been purchased and public lands set aside by all of the English-speaking countries.

It is not possible at this time to give a table of the amount of land so acquired.

NOTE ON THE COOPERATION OF PUBLIC AND PRIVATE INTEREST IN LAND SETTLEMENT FOR SOLDIERS.

European countries in contrast to English-speaking countries, where State action largely prevails in land settlement, have developed a policy of State cooperation with private societies. This is notably true in the cases of France, Holland, Norway, and Sweden. Private societies which are created for the building of houses, purchase of acre farms, or the subdivision of large estates usually sell their securities in the money market, realizing very small margins of profit, but also supplementing their funds by those received from the State. They also derive benefit and create their reserve capital by means of share membership. Even if they depend wholly upon State funds these private societies relieve the State of a large administration expense.

In Sweden there are three classes of such associations, national, provincial, and local, 17 in all. These associations are given about 1,000,000 crowns a year for their several purposes.

The real estate credit societies for small holdings and dwelling houses are composed of five elements: Private individuals, savings banks, public benevolent institutions, commissions and departments, and the State. They are aggregations of public and private funds devoted to a social purpose. The savings banks can not only invest in these societies but it is of greater advantage for them than to loan to individuals. The commissions and departments not only take bonds and shares, they guarantee the share dividends, but also the interest. Through the various agencies a society with 25,000 francs of paid-up capital may make advances on a total real estate value of 625,000 francs.

The agricultural lending societies in France have been given the task of purchasing small rural properties for soldiers and civilian victims of the war in a law signed April 9

by President Poincare. The law provides in part: "Individual mortgage loans to facilitate the acquisition, parceling out, transformation, and reconstruction of small rural properties of which the value does not exceed 10,000 francs."

GREAT BRITAIN.

Legislation and appropriation.—Thus far England has done little more than experiment with land settlement for the soldier. There has been much agitation and legislation for small holdings, but without achieving very satisfactory results. Since the beginning of the operation of the small holdings act (1911) for the purchase of small acreage through the county councils there is said to have been an actual decrease of 5,500 holdings of 50 acres or under in England and Wales. The statement has also been made that of the 15,000 small holders who rent or have purchased through the councils only 774 have had newly equipped farms; the remainder have had to shift for themselves. This result is not promising, considering the fact that £5,250,000 has been advanced to the councils out of public funds for purchase and adaptation. For the councils it may be said their advances are being repaid, and their losses are negligible. The councils have not used the credit, banking, cooperative transit, and market facility clause of the act. They have insisted that the applicant have a capital of at least £5 per acre of land leased or purchased. This requirement has eliminated most laborers. Although the Board of Agriculture has the authority to go forward with the development of small holdings if the council in question does not act, the Soldiers and Sailors Land Committee of the Board of Agriculture has decided that settlement of soldiers under this act is not feasible. The failure in the main seems to be due to the lethargy of the councils.

By act of Parliament (6 and 7 Geo. V, 38) the Board of Agriculture and Fisheries is enabled to acquire land for a small number of experimental holdings. Four of such areas for subdivision comprising 6,000 acres, the maximum permitted under the act, have been purchased or leased, three in England and one in Wales. These will be described later. Recently a bill has been introduced in British Parliament authorizing the purchase of 60,000 acres of land in England and 20,000 acres of land in Scotland to provide homes for returning soldiers. This is ten times the area originally authorized to be bought. In addition, large areas of land in Scotland have been given to the Government to be subdivided into farms and leased to returning soldiers.

The departmental committee appointed by the president of the Board of Agriculture and Fisheries to study and propose settlement plans asked for an appropriation of £2,000,000.

Administration.—Settlement of soldiers in England and Wales comes under the Board of Agriculture and Fisheries. In Scotland the Board of Agriculture is operating under the same act.

The kind and amount of aid.—The land: Assistance to soldiers has taken the form of colonies. Four of these have been established to date by the Soldiers and Sailors Land Committee. The colonies to be developed were planned to accommodate about 100 families, each of which is to have from 10 to 25 acres, according to the character of the farming. Two of the colonies have been obtained on a 99-year lease at a yearly rental. The other two were purchased. They vary in size from 1,000 to 1,345 acres. Each of these colonies is to have an administration farm of about 250 acres, on which stock and implements are maintained for the use of the small holders. However, the division of the assets has, up to the last information, not been accomplished.

Credit: The English plan does not contemplate extensive credit to the occupiers of these colonies. The board expects to supply opportunities for work and to improve the small holdings in a way to make them yield at an early date a support for the settler and his family. Such cash as may be needed for the purchase of stock may be had from the cooperative credit bank to be established under the partnership of the State. There are also to be accommodations in the way of stock and implements at the central farm.

Land tenure.—In line with the traditions of British agriculture, the Soldiers and Sailors Committee favors tenantry rather than ownership. The reasons given are: First, that for the State supervision and control it is best; second, to the small holder tenantry offers greater mobility and freedom of movement; third, less capital is needed by them in the case of a lease of large areas than the purchase of small holdings. The English small farmer does not, it is claimed, care for ownership. During the seven years the small holdings act has been in force there have been no applications for purchase.

The selection and training of soldiers.—Discharged soldiers of the army who desire to farm are expected to work at least a year on one of these colonies before taking up the small holding.

Progress of land settlement.—Very recent information is not at hand regarding the progress of land settlement. The four colonies have not yet been fully established. It is understood, however, that the Soldiers and Sailors Committee is preparing to make recommendations for a considerable extension of colony settlement.

CANADA.

THE DOMINION GOVERNMENT.

Legislation and appropriation.—A soldier settlement board of three members was appointed in February, 1918, following upon the act of August 29, 1917, called an "Act to assist returned soldiers in settling upon the land and to increase agricultural production." The essential features of this act are the bestowal of agricultural credit when needed by soldiers in any part of the Dominion and the gift of Dominion land in western Canada. The credit may be used for acquiring and improving land, for the payment of incumbrances, erection of buildings, purchase of stocks, etc.

The sum of \$2,916 000 has been appropriated by Parliament for the purposes of this act.

The administration of the law.—The complete administration of the act is in the hands of three departments or divisions. (1) The soldier settlement board, which with the approval of the governors in council may make all fundamental regulation with regard to purchase or occupation of land and the granting of loans. The board has offices in each Province, through which cooperation is established with the provincial settlement boards, the land officers, and the advisory boards. (2) The interior department handles all matters in connection with the entry, patenting, etc., of Dominion lands. (3) The provincial advisory boards, which are made up of community leaders, who serve without pay, and whose recommendations largely govern.

Respective spheres of State and Federal acts.—With the exception of a certain amount of land in the western Provinces the control of patented lands, civil rights and local administration is in the Province. The Dominion settlement act has therefore no jurisdiction over lands in the Provinces except in the case of those lands reserved by the Government. The loans are intended primarily to assist the soldier to develop the free Dominion lands, and secondarily to assist the Provinces when possible. As yet no general agreement has been made between the Provinces and the Dominion Government as to the settlement of soldiers. The aim, however, is to support provincial plans and policies.

The kind and amount of aid offered—The land.—By civil right the soldier is entitled to 160 acres of vacant Government land. As a soldier he may take up two adjoining quarter sections, making 320 acres. Special reservations have been made within 15 miles of the railroad in northern Alberta.

The credit.—The maximum amount which the board can loan to a settler is \$2,500. However, the amount which may be loaned the settler is in every case dependent upon the value of the security which he gives. In the case of free land the value is determined by its agricultural productions, and the commercial value of any other security given. The ability of the applicant to make a living and to meet his obligations is taken into account. The loans will constitute a first charge upon the land. First-mortgage security is given for all loans upon privately owned land.

Payments of principal and interest reach over 20 years; the first two installments may be deferred, but the deferred payments will continue to bear interest.

The rate of interest is 5 per cent per annum.

The conditions of tenure.—The law gives the soldier a freehold right in the land. Patents, however, will not be issued until the entire loan is paid up. Transfers prior to that time are with the consent of the board. Residence and cultivation of the land are required. The settler may at any time pay to the board the whole or any part of the money borrowed with interest.

Selection and training of the soldiers.—Applications are passed on by the advisory boards in each Province. It is the duty of these boards to see that the applicant is justly dealt with, according to the merits of the case. This board may send the soldier to a farmer for instruction or to an agricultural training station. It may, again, place the soldier upon the land and recommend that a grant be made. (It has been reported that the men are as a rule averse to an assignment to farmers as help, but are not opposed to a period of training in an agricultural school, where presumably they may work together.)

The act empowers the Soldiers Settlement Board to employ farm instructors and inspectors to assist settlers, and instruction for training in domestic and household science for settlers' wives and female dependents.

The progress of settlement.—One week after the opening date for filing applications (July, 1918) a total of 28,000 acres to 181 soldiers was granted.

Six hundred and ninety thousand and eight hundred dollars in loans to 606 applicants were approved by July 15. It is reported that 10,000 additional acres of Dominion land will be cultivated by soldiers this year.

NEW BRUNSWICK.

Legislation.—The act of April, 1916, "to provide for settlements after the war" gives new duties to the farm settlement board and creates an honorary body known as the advisory board. The advisory board receives from the farm settlement board proposals for the selection of suitable lands, both private and Crown; also proposals for the furnishing of supplies, equipment, instruction, and education to settlers. These proposals are reported with recommendations to the governor in council, who in turn may make regulations for the proposals agreed upon. The lieutenant governor in council may borrow such funds as may be necessary upon the credit of the Province.

The kind and amount of aid.—Land will be sold or granted to settlers in amounts varying from 10 to 100 acres. Opportunity will be given to enlarge acreage.

In purchased lands, the soldier pays 10 per cent cash, the balance in 20 years, paid semiannually with interest.

A patent or deed to the land will be given upon the payment of all advances.

Selection and training of soldiers.—New Brunswick's plan is to develop settlements at once and to send men to them for employment and experience. A suitable village or town site is selected and small farms laid out in the immediate neighborhood, with larger farms in outlying portions. A government demonstration farm is a part of the plan; here teams and implements are available as in the case of Ontario.

Settlement progress.—An area of 20,000 acres has already been set aside for beginning settlements. These settlements are to accommodate 100 to 250 families.

PROVINCE OF ONTARIO.

Legislation and appropriations.—Of all the Provinces of Canada Ontario undoubtedly leads in the scheme which it has adopted for the settlement of the soldier, as well as the progress that it has made in actual settlement. The first soldiers' act (No. 150) was passed in 1916. Its purpose was to make available the immense territory known as the clay belt, which extends west from the boundary between Ontario and Quebec for a distance of 400 miles. The soil is a rich clay loam, free from rock and well adapted to mixed farming. The district is reached by two railroads.

A \$5,000,000 appropriation has recently been made for northern development, the larger part of which will be used in the interest of the soldiers.

The administration of the act.—This is primarily in the hands of the deputy minister of lands and forests. A committee represented by members from the department of lands, forests and mines, the department of agriculture, the military hospital commission, the great war veterans' association, the soldiers' aid commission, the Canadian patriotic fund commission, and the vocational training school pass upon applications and determine the disposition to be made of the soldier.

The plan is wholly a provincial one, so that its relation thus far to the Dominion board is only indirect and incidental.

Kind and amount of aid granted.—One hundred acres, of which 10 have been cleared, will be allowed each soldier without charge. When necessary a loan not to exceed \$500 will be made to pay for housing, machinery, tools, and live stock. The amount loaned is repayable in 20 years with 6 per cent interest. No payment of principal or interest is required for three years. This may appear a small amount, but it is not so when other aid is taken into account. The ex-soldier is paid for clearing his 10 acres and also receives the assistance of his fellow settlers. A central colony farm will be established in each district. Here the settler may obtain the use of houses and a stock of the heavier farm implements without the need of purchase. The central farm will assist in many other ways.

While the men are in training or employed in groups, they will be paid. Single men receive \$2.50 per day, married men \$1.10 a day with a maximum monthly allowance of \$30 for dependents.

The land tenure.—A patent from the Crown is obtainable in five years from the time the soldier begins work on his own land. He must have carried forward the development of his land.

The selection and training of soldiers.—Applicants for land are first given a physical examination. Their applications are then considered by a committee, the members of

which have already been indicated. Most of the men are sent to the agricultural training depot, established on the government experimental farm at Montiethe. After longer or shorter training periods they are then sent to the farm colonies that have already been established. Already several hundred men have been provided with land. As early as October, 1917, there were 500 applications for land on file.

BRITISH COLUMBIA.

Legislation and appropriation.—A number of acts have been passed in this Province to aid the soldiers. The acts confer added powers upon the Land Settlement Board, which, with the sanction of the Lieutenant Governor in Council, can make loans, lease, exchange, set aside Crown lands, purchase, subdivide, and farm private lands. The land settlement act of 1918 permits the board to establish "Settlement areas" where good but undeveloped lands are available. Owners therein must either improve their lands or sell to the board at an appraised value. If the owner files a statement claiming a higher value, such value will be taken for assessment. The penalty for not making improvements is a tax of 5 per cent of the board's or the owners's values, in addition to all other taxes.

The soldier's land act of 1918 empowers the board to expend not more than \$500,000 for the purchase of private land.

The administration.—The Minister of Lands administers all affairs concerning lands; the Land Settlement Board in cooperation with other related departments of the Government deals with the soldiers. The Agricultural Credit Commission administers the loan funds. In general, British Columbia in common with most of the other provinces has not found it necessary to provide for service men, but merely to enlarge the powers of the existing agencies.

State and Federal action.—The act of 1918 instructs the Lieutenant Governor in Council to convey to the Dominion such Crown lands as may be necessary. In this way the Dominion appropriation of \$2,500 may be used for British Columbia soldiers. Fifty thousand acres have already been set aside for soldier settlement.

The British Columbia Government does not state expressly what assistance it will give soldiers, each case being dealt with individually. The aid is liberal, however. A soldier may acquire 160 acres of free land or purchase through the board this amount of private land.

British Columbia follows the general plan of Ontario as to the training of soldiers, relying somewhat more, perhaps, on turning the soldiers over to farmers to gain the necessary experience.

AUSTRALIA.

AUSTRALIA'S EXPERIENCE IN LAND SETTLEMENT.

The Australian States have had a relatively long experience in the purchase, subdivision, and settlement of lands; they can in general do little more for the soldier than they have done for the settler since 1901, except to hasten the development of new areas of land and to increase the rate of purchase. Between 1901 and 1914 the six Australian States purchased and subdivided 3,056,957 acres, for which \$55,342,125 was paid, or about \$18 an acre. Settlers were also assisted to build homes and to make needed improvements. Between 1909 and 1914, \$68,029,500 was loaned for improvements. The Commonwealth Government alone will advance £100,000 to settlers in 1917-18. It expects to advance £2,000,000 in 1918-19. The farmer pays a higher rate of interest than that paid by the State; land settlement has, therefore, not been an added burden to the taxpayer. Although Australia has vast areas of land unoccupied, most of that which is susceptible of being brought under cultivation at moderate expense has already undergone development. A serious problem confronts the Dominion and State governments in providing land in any such proportion as that which has already been called for by her soldiers.

The Dominion Government.—The Australian Dominion Government was the first to draft a fully adequate law to repatriate the soldier, be he maimed or whole bodied. The repatriation act of 1916 was intended to consolidate and stabilize the private patriotic funds which were being accumulated in the several States, and were being administered locally. The Government added to the sums collected by the States, making a total fund of £359,355. This was used for relief and vocational service of all kinds, including small sums for the reestablishment of shops and small farms.

The next step was a beginning toward actual settlement. In consideration of the number of men in the Army who have expressed a desire to take up land the Government contemplates an expenditure of £20,000,000—an equivalent for the population of the United States of about \$2,000,000,000, to place soldiers upon the land.

Respective spheres of State and Federal action.—Under the plan worked out with the States the latter are to provide the land for settlement, while the Commonwealth makes advances to cover the cost of the improvements, stock, etc. The plan of cooperation as at present worked out is to the effect that the Commonwealth will supply the necessary funds, amounting to £22,000 in all for the credit and advances of all kinds to settlers. A joint board, consisting of a minister for each State, and the Commonwealth minister, will supervise operations. "The board will recommend advances of money to soldier settlers, decide upon the purposes for which such advances may be made; decide upon the rate of interest, and method of repayment. * * * The advances will be made at reasonable rates. Each settler will be allowed an advance up to the full value of his improvements. In this way capital which each settler must possess of his own will be reduced to a comparatively small figure."

NEW SOUTH WALES.

Legislation and appropriation.—The soldiers' settlement act was passed in 1916 and amended in 1917, which gave the minister power to set apart any area, Crown land or land acquired in closer settlement acts, for the benefit of soldiers. In general, land is acquired by the soldiers under the customary forms of land tenure, such as that of the farmstead home or the Crown lease. Provisions are made in the returned soldiers' special holding and in that of group settlement purchase. This special legislation gives the settlers a few advantages, such as that of group settlement, and application by one or more (instead of three) settlers for the purchase of private land which the purchaser has selected.

The administration.—The minister of lands has full charge of all settlements and loans. A large number of district land officers assist. Applications are dealt with by a classification committee.

New South Wales has developed a complete system for settlement and advance of credit; mention is not made of the existence of a working arrangement with the Dominion Government.

Kind and amount of aid.—The land: The most important aid which New South Wales gives her soldiers is found in the method by which land values are fixed and the long time allowed for payment and low interest rate. The value fixed is as near the earning capacity of the land and its location as it is possible to make it. The annual payments are fixed at 2½ per cent of this capital value. The semiannual payments are spread over 38 years, the first two years being omitted. In the case of the group settlement purchase five years' residence on the block or employment in the group settlement is required. Payments begin six months after purchase and are at the rate of 6 per cent of the value. In the purchase of private land with the approval of the minister, the purchaser is obliged to pay the first installment, the balance being provided by the Government and repayable by annual installments. Ten years' residence is required, and improvement equal to 10 per cent of the capital value must be effected in two years, 15 per cent in five years, and 25 per cent in 10 years.

The credit: Five hundred pounds are advanced for improvements. Such advances will be allowed for improvements effected by the settler in the same way as if work had been done by contract or hired labor. Maintenance is allowed during probationary work, but such allowances must come out of the loan. Repayment of loans will be extended over 25 years (first five years' interest only to be paid). Tools, stock, and implements are paid for in six years (first year's interest only to be paid). Seeds, plants, trees, one year.

The land tenure.—New South Wales does not give an absolute title to the land. When all conditions have been met the holder receives a lease in perpetuity which for all practical purposes is equivalent to a freehold title. The "rent" for the land, as has been said, is based upon the capital value of the land as determined by the local land board, reappraisal of this value being made in 20-year periods.

Selection and training of the soldiers.—Every man in the imperial service who wants a farm is given an opportunity to show his fitness. He may on his own initiative gain six months' experience on a farm or go to the Government farm for the necessary training.

Settlement progress.—The State has made fair progress in providing farms. Preparation of 1,000 farms in the Yanco irrigation area is already under way. The average farm is to be 50 acres. Other areas are under development.

The State plans to lay great emphasis upon the cooperative services which may be used in the community. These services apply not only to the preparation of the lands of settlers, but to such matters as distribution and sale of products, purchase of supplies, establishment and management of canneries, creameries, etc. Settlers

on the projects of the State have always shown great willingness to loan their labor and their teams for the use of newcomers.

The State has already been called upon to provide farms for 5,000 ex-soldiers and is finding difficulty in keeping pace with the demand, although up to March the Government had purchased 18 estates of 171,213 acres, and it is proposed to make 2,000,000 acres available by January, 1920.

VICTORIA.

Legislation and appropriations.—Under the Victoria closer settlement act some 567,687 acres have been purchased for civilian settlement. The lands average \$37 an acre in cost and were sold to the settlers for about \$45 an acre, supervision and settlement absorbing the difference. Up to the beginning of the year 4,112 settlers had secured land under the act.

Victoria's act for the settlement of discharged soldiers on the land was passed October, 1917 (8 Geo. V. 2916). The act makes special provision for returned soldiers beyond those found in the general closer settlement act of 1915. It also authorizes extensive development of irrigated areas and purchase of nonirrigable land. Moneys expended in agricultural development come from the sale of State bonds in the London market.

Administration of the law.—The land purchase and management board, responsible to a minister of lands, administers the law in regard to all nonirrigable land, and the State Rivers and Water Supply Commission is responsible for settlement upon irrigable areas.

The council of every district or municipality is made an advisory committee to the board. The duty of these committees is to report upon land available, to aid and encourage soldiers and to assist the board in every way.

Victoria has opened her lands to all soldiers of the Empire who have been duly certified in London as fitted for settlement. The State has been hastening the improvement of all available irrigated land and has made large purchases of land in regions of satisfactory rainfall. Data are not at hand as to the acreage purchased, but some \$5,000,000 has been set aside for this purpose.

It is believed that an expenditure of \$25,000,000 will be necessary to provide sufficient land for the soldiers who return or come to Victoria.

Respective spheres, etc.—Victoria was a party to the original agreement with the Dominion Government with regard to the consolidation of the repatriation fund. She will probably, if she has not already done so, adopt the Dominion plan of settlement as outlined.

Kind and amount of aid.—Civilian settlers are required to pay a deposit of 3 per cent on the capital value of the land on taking it, and to make amortized payments of 6 per cent per annum for 31½ years. Soldiers, however, need make no payments for three years.

It is preferred that the soldier have some capital. To this and to the value contributed by the soldier's labor, the State will make additions. The general rule for advances is 70 per cent of existing value up to \$2,500. All loans are made by the State Savings Bank.

The State will also make advances to those soldiers who desire to go in for share farming, when such loans are indorsed by the proper authorities.

Tenure of the land.—Victoria bestows a freehold right in the land. The applicant for land under the general act gets a right to occupy. He then receives a conditional purchase lease which may run for the period of the payments. At the expiration of 12 years, if all covenants and agreements have been met, and all purchase money for land and improvements paid, a Crown grant for the land is given.

Residence for eight months is required of the civilian; the soldier is exempt from this requirement, but he may not have two holdings and can not sublease.

Selection and training of soldiers.—Experience is gained at the agricultural college or in working for farmers on the land board. The local advisory bodies and the land officers have the responsibility of selecting men.

Victoria is having difficulty in providing land fast enough for soldier needs. The land board has asked holders of large tracts to get together and set a part and subdivide acreage for soldiers' needs.

QUEENSLAND.

Legislation and appropriation.—The discharged soldiers act of 1917 (No. 32 of 1917) provides facilities for the land settlement of discharged soldiers. Practically all of the Crown land in the State has been reserved for the soldiers. Sixty thousand acres of this land have been especially set aside for group settlements. The constitution of the consolidated revenue fund by means of sales of bonds is arranged through

the governor in council. All expenditures are made by the minister of lands, with the approval of the governor in council. The act does not state the amount of the fund, but bonds are authorized to meet the requirements.

The kind and amount of aid.—In Queensland, as in New South Wales, public land is disposed of under lease. The terms to the soldier are most generous. No rent is required for the first three years, and from the fourth to the fifteenth year the annual rent is 1½ per cent of the capital value, and is fixed by the Minister of Land. However, the lessee is obliged to meet requirements as to improvements and residence. For the first 10 years of the term the soldier settler may not mortgage his land except to the Commissioner of the Government Savings Bank, or transfer it, except to another returned soldier.

For Crown land the capital value will be from 10 shillings per acre upward, and will not go beyond 30 shillings per acre. On resumed areas the capital value will depend on the price paid by the State.

Credit advances: The soldier settler may borrow up to \$2,500 from the Government Savings Bank for making improvements on the land, erecting dwellings, etc. While the civilian settler pays 5 per cent for such loans, the soldier settler pays but 3½ per cent for the first year, 4 per cent during the second year, and an increasing rate of ½ per cent per year until the rate of 5 per cent is reached. The repayment of the loan reaches over 40 years. Advances for the purchase of stock, machinery, or implements may command an additional loan. In fact the total advances may amount to as much as \$6,000.

Land tenure.—Both in the case of public land and that resumed, a freehold title is not given, but in its place the occupant received a perpetual lease selection when all the conditions have been met.

Progress of soldier settlement.—Three large areas are at present undergoing development for soldier settlement. The Beerburrum Settlement is in the most advanced condition. The total area of this settlement is some 51,000 acres and the land is suitable for pineapple growing, also that of citrus fruits. At this settlement there is a training farm where the men are given working knowledge of the agricultural conditions of the region. They receive wages of from two pounds to two pounds ten shillings a week while there. There is also a general store and a State school, together with a library. At Pikedale, a border town near New South Wales, there is also another area of 17,400 acres. Clearing and road making is going on in this reservation. A State nursery has been planned and soldiers will be employed on it. Another center is at Oswald's Track in North Queensland near Innisfail. Here 157,300 acres have been reserved for soldiers. The land is suitable for dairying, general agriculture, and sugarcane farms. Another 40,000 acres are projected in the Cecil Plains in the Toowoomba district, and still another 112,000 acres on Mount Hutton. Further areas amounting to 52,400 acres in various parts of the State have been set aside.

SOUTH AUSTRALIA.

The administration.—In this State an act was passed in 1915, and another in 1916 (7 Geo. V, No. 1264). In this act the powers of the land board, the land commissioner, and the governor are specified. The governor has the power to set aside lands, to purchase lands, and to make any regulations conducive to the purpose of the act. A separate machinery is not set up for the execution of the law.

South Australia has joined the Federal plan as outlined under Dominion Government.

The aid rendered soldiers.—The usual low rate of interest and long-term payments are accorded the soldier. Assistance for development is available both from the State and the Federal Government. The rent of the land in the case of the soldier may be remitted for as long a time as the commissioner deems necessary. The settler is expected to have some capital.

Tenure of the land.—South Australia gives a perpetual lease rather than a freehold title. No lease granted can be transferred except on the recommendation of the land board with the consent of the commissioner.

Training of soldiers.—The Government has established farms in the repurchased land and the irrigation areas for the training of ex-service men who have not had previous experience.

Progress of settlement.—Two large blocks of land have been purchased for closer settlement. There are large areas of Crown lands suitable for wheat growing. Much other land is available when it can be drained.

WESTERN AUSTRALIA.

Government provisions.—The State has reserved land in the "Wheat belt" and in the "Southwest." In the wheat belt the soldier may purchase 840 acres at 15 shillings per acre and select 160 acres for which he need only pay the survey fee. For this and for any money the Government may have expended for the land, payment is spread over 30 years. To handle such a farm the soldier should have a capital of £500, but some of this can be borrowed from the Agricultural Bank. Residence and progressive improvements are required.

In the Southwest timbered land the soldier may select 160 acres. A part of this will be cleared by the Government.

Training stations are provided in the Southwest. The State does not pay men while gaining experience as work is available on every hand.

TASMANIA.

Tasmania has, in general, followed the plan of New Zealand in dividing its lands for soldier settlement into ordinary and special tenures. By the act of 1916 (7 George V, No. 20) the Closer Settlement board, established by prior acts, was given the task of soldier settlement, the same act providing a closer settlement fund of not less than £150,000. The Tasmania administration is notably liberal with soldiers. Interest is waived for the first 12 months and payments of principal for the first four years, all of the deferred interest being added on to the principal to be paid back over a long term of years. In common with other Australian States, this Government gives the soldier a credit of £500.

The land can be acquired either by purchase or on lease. First-class land may be bought by the 200 acres at £1 per acre; second-class land of a larger number of acres can be obtained at 10 shillings per acre, and third-class land of still larger areas at 5 shillings per acre.

Residence is necessary according to the provisions of the Crown lands acts. No interest or taxes will be payable for four years for the sale, or in the case of lease of the land no rent will be charged for the first year.

NEW ZEALAND.

Legislation and appropriations.—The first act was passed in 1915, but it was extensively amended in 1916 and 1917. Lands for soldiers are of two classes, ordinary tenures being areas for general farming and sheep runs, and special tenure being small acreage near towns and cities, largely for disabled soldiers. Lands under ordinary tenures are purchased or set apart by proclamation. These may be obtained for cash, occupation with right of purchase, renewal lease, or small grazing run lease, as the case may be.

In the year 1917, 276,290 acres were set apart for the soldiers.

The demand for land in New Zealand is very great, the best portions which are suitably served by transportation being already settled. Under the public works act (1908) the Government has the right to prescribe the limit of area which may be retained by a landowner for different classes of land. This law is invoked for the benefit of the soldier, in the case of land in the neighborhood of the cities. In 1916, £500,000 was appropriated for this purpose. The land board may also purchase any private property when it is specifically applied for by a discharged soldier. In this case land must be offered voluntarily to the State.

In addition to the above amount, £120,000 has been appropriated for advances to soldiers and for roadways opening blocks of land.

The administration.—Land purchases and settlements are placed in the hands of the land board with the consent of the minister. The land board is assisted by a staff of inspectors and instructors. Complaint is made, however, that the absence of a special soldier's board has been detrimental to the interests of the soldier; that his case and his rights which have been recognized so fully elsewhere are not sufficiently protected.

Kind and amount of aid.—In the purchase of land the soldier pays 5 per cent down and 5 per cent interest. A lease will have a 66-year term, with perpetual right of renewal at the rate of 4½ per cent, based on the capital value of the land.

Advances of £500 and even £750 will be made for purchases of private land, for transfer of lease, or any land administered by the board. Such advances are also used for all ordinary purposes of improvement. All sums are advanced as required rather than in lump.

Land tenure.—This is either in the form of lease or freehold. New Zealand has not adopted a uniform policy in either direction in the case of settled lands. Lands held under lease may be purchased by the soldier. The range land is, however, always held under lease. The soldier is not permitted to transfer his land without the consent of the board for a period of 10 years. The land is revalued at intervals, both for taxation and lease payments.

Selection, training, and placing of soldiers.—The board does not emphasize preparatory training. A man is early placed upon the land, and his instruction left to agricultural agents.

Up to March 31, 1917, 319 applicants were provided with 143 524 acres. One hundred and eighty were placed upon crown lands and 131 upon land acquired under the land settlement act.

The Government has provided suburban land suitable for market gardening, poultry farms, small areas of rural land adapted to beekeeping, small farms suitable for dairying, fruit growing, etc.; large holdings suitable for mixed farming; and pastoral country for grazing only.

Thirty thousand nine hundred and fifty-six pounds have been paid to 143 soldiers. The rate of progress is, however, not entirely satisfactory. Of the 16,670 soldiers that have returned from the front up to May 1, 1918, only 624 have taken up land. It is claimed settlement is not pushed by the land board.

UNION OF SOUTH AFRICA.

No legislation of importance has been passed in the Union of South Africa making toward the settlement of soldiers. The British South African Co. has 500,000 acres for settlement. There has also been formed the Royal Colony Institute with 2,000 acres of irrigable land. This land is to be divided into blocks of 30 and 40 acres, the latter to be the maximum to be allowed, although a settler may acquire further land outside of this area. The State will provide station officers and will, if necessary, arrange for the erection of such permanent improvements as are necessary, the cost of this undertaking to be added to the purchase price.

The British South African Co.'s land is irrigable and they will clear the land of bush, stumps, and plow to a depth of 9 or 10 inches. Twenty per cent of the purchase price will be paid in six years and the balance in the four following years. A settler there will not pay interest in the first five years in which he is establishing himself. A working capital of \$2,500 is considered necessary.

Soldier settlement plans of foreign countries.
[Compiled by United States Reclamation Service.]

Country.	Act.	By whom administered.	Aid given.			Appropriation.
			Amount.	Time.	Interest.	
Dominion of Canada.....	Soldier settlement act, Aug. 29, 1917.	Soldier settlement board of 3 members; advisory boards in each Province.	Advances \$2,500 on first mortgage.	20 equal payments, first 2 deferred.	5 per cent.	\$2,916,000.
Ontario.....	Act No. 150, 1916.	Deputy minister of lands.	Dominion amount of \$2,500, and Provincial amount of \$500 for stock and tools.	20 years.	{.....do. 6 per cent.	\$5,000,000 (March, 1918).
British Columbia.....	6 Geo. V, 59, 1916.	Agricultural credit commission.	Dominion amount of \$2,500; fund to be provided.	do.	5 per cent.	Empowers board to spend \$500,000 per year to purchase private land No data.
New Brunswick.....	6 Geo. V, 9, April, 1916.	Farm settlement board.	Dominion amount \$2,500, and \$500 to \$1,500 by Province.	do.	do.	\$100,000,000.
Australia (300,000 soldiers).....	Conference in 1917 of Federal and State authorities.	Board consisting of minister from each State.	Plans for advancing money.	Data later.	Data later.	No data.
New South Wales.....	Returned soldiers settlement act No. 21, 1916, amended 1917.	Minister for lands.	Advance up to \$2,500 on improvements.	Lease.	2½ per cent on capital value.	\$11,250,000.
Victoria.....	Discharged soldiers settlement act, Oct. 22, 1917.	Victoria land purchase board and State water commission.	Advances up to 70 per cent of value of improvements, maximum \$2,500.	31½ years.	6 per cent.	\$50,000 for administration only; so far.
Queensland.....	{ Discharged soldiers settlement act, 1917. Soldier settlement act, 1916, 7, Geo. V.	Minister for lands and land court.	{ \$2,500 buildings, \$1,500 equipment; survey fee; annual rent. Advances promised up to \$2,400.	{ 10 years. 25 years. 10 years. Perpetual. 21 years.	{ 3½ to 5 per cent. 5 per cent. 1½ per cent on capital value. 4 per cent.	\$220,000.
South Australia.....	Discharged soldiers settlement act, 1916, 7, Geo. V.	Land board and land settlement advisory commission.	Advances made for clearing, etc.	No data.	No data.	\$3,000,000.
New Zealand.....	Returned soldiers settlement act, 1916, 7, Geo. V.	Name not given.	Advances up to \$2,500.	21 years, no payment first year.	3½ to 5 per cent.	\$750,000.
Tasmania.....	Returned soldiers settlement act, 1916, 7, Geo. V, 20.	Minister of lands.	No data.	No data.	No data.	\$10,000,000 asked for.
United Kingdom.....	6 and 7 Geo. V, c. 38.	Board of agriculture and fisheries.	Advances up to \$2,500.	3½ and 7 years.	4½ per cent.	Appropriations by provincial parliament for purchase of private lands.
Union of South Africa.....	Land settlement act, 1912, and amendments 1917.	Minister of lands and land board.	\$1,250 on stock and equipment; advances up to \$25 per month to families.	No data.	No data.	

Soldier settlement plans of foreign countries—Continued.

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Country.	Lands (areas set aside).		Tenure.	Training.	Operation of act.	Capital necessary.
	Public.	Private.				
Dominion of Canada..	All Dominion lands within 15 miles of railroad reserved. Free entry, 160 acres. Manitoba, Alberta, Saskatchewan.	No data.	Free grant.	Demonstration farms or with approved farmers employed at current wages.	608 applicants for \$300-800 approved; no colonies yet; pending transportation rates.	Some capital in order to secure loan.
Ontario.....	100 acres each; 10 acres cleared cooperatively; received patent in 5 years.	do.	Patent given in 5 years.	Monteith experiment farm. Wages, single men \$2.50 a day, married men \$1.10 a day, and \$20 a month to wife and \$6 a month to each child.	40 men in first colony; 24 in training; 500 applications on file, first colony, Kasputasing.	Not absolutely essential, but need some capital in order to secure loan.
British Columbia....	Lands granted free, 160 acres; pre-emption claim for \$10.	Grant 160 acres.	Free grant.	No mention.	No data.	No data.
New Brunswick.....	20,000 acres set aside. Farms to be 10 to 100 acres.	No data.	do.	Demonstration farms to be established.	Employment can be obtained until take up farms.	\$500 to \$2,000 desirable.
Australia (300,000 soldiers).	No data.	do.	No data.	No data.	Circularized and found that 40,000 soldiers wanted land.	No data.
New South Wales....	do.	1,500,000 acres to be acquired in 18 months; 171,000 acres acquired.	Perpetual lease 2½ per cent on the capital value besides water rent.	Must have 6 months' agricultural experience; education provided.	500 men on holdings. Average size grant 50 acres; 1,000 farms in the Yanco irrigation district.	\$250 to \$500 desirable.
Victoria.....	do.	Irrigated lands to be opened in settlements and 500,000 acres for wheat growing.	Purchase in 3½ years. Deposit 3 per cent capital value, 6 per cent annual payments, principal and interest.	Previous agricultural experience required before taking lands.	955 soldiers applied for lands up to July, 1918.	At least \$1,500.
Queensland.....	60,000 acres Crown lands set aside by minister.	500,000 acres acquired by agreement or compulsorily.	Perpetual lease only; no fee simple title.	Training farms to be established.	Application can be made for farm by relatives and terms can await return.	None mentioned.

South Australia.....	No data.....	3 large blocks, 10,000 acres set aside; \$220,000 at \$22 per acre.	Perpetual lease.....	On farms comprising similar land.	Advances made for improvements, equipment, stock, and seed. May purchase land worth \$1,500,000 per year.	Some capital desirable.
New Zealand.....	.....do.....	276,000 acres set aside; preference for soldiers. Obtain by agreement or condemnation.	Lease 66 years or freehold. 99-year lease or purchase after 10 years.	Can obtain training at State farms. Train at State farm; experience necessary.	624 applications to Mar. 31, 1917.	Do.
Tasmania.....	Free grant of 100 acres...				No taxes for 4 years. Loans for clearing, fencing, drains, equipment, and seed.	No data.
United Kingdom.....	None.....	Authorized 6,000, increased to 60,000 acres.	Leased.....	Train on demonstration farm at fair wages.	Working out a larger plan for England and Scotland.	Do.
Union of South Africa.	Allot Crown lands.....	Purchase private land at price not to exceed \$7,500 for each settler who furnishes one-fifth of price.	Lease for 5 years and option to purchase at price fixed at time of lease, with 20 years to pay.	Training provided.....	Rent first year, nothing; second and third years, 2 per cent; fourth and fifth years, 3½ per cent; sixth to tenth years, 4 per cent.	Do.

FRIDAY, JANUARY 17, 1919.

RECLAMATION OF SWAMP LANDS.

(See pp. 841, 914, 956.)

STATEMENT OF MR. ARTHUR P. DAVIS, DIRECTOR OF THE RECLAMATION SERVICE.

MR. BYRNES. Mr. Davis, with reference to the subject which has been discussed by Secretary Lane, do you desire to make a statement to the committee? I am referring to the provisions contained in H. R. 13651.

MR. DAVIS. The bill as introduced does not contain the words "cut over," and I have been told repeatedly that it is misleading and may somewhat injure the chances of the bill, so that I have made a few suggestions for insertion in the bill, by inserting the words "cut over."

For about five months we have been operating under the provisions of the appropriation act that passed last summer for the investigation of the swamp and cut-over lands. I have a brief statement concerning each of the States that have been examined in this connection that it might be of value to put in the record.

MR. BYRNES. You mean that under the appropriation carried in the sundry civil bill of last year you proceeded to make a survey of the country?

MR. DAVIS. Yes, sir.

MR. BYRNES. In how many States have you made such an examination?

MR. DAVIS. I should say in a little over half of them to which the bill applies. We have not yet gotten around to all of them.

MR. BYRNES. With a view to ascertaining what lands are available for the purposes set forth in that section?

MR. DAVIS. Yes, sir.

MR. BYRNES. And the results of your examinations are contained in the statements which you have in your hand?

MR. DAVIS. Yes, sir.

MR. BYRNES. Suppose you have them made a part of the record.

MR. DAVIS. All right, sir.

(Said statements follow:)

Summary of drainage projects and large swamps in the northern division.

ILLINOIS.

Project or swamp.	Acreage.	Remarks.
Embarrass River Valley.....	83,785	Levee districts for flood protection recommended by State geological survey.
Green River Valley.....	150,000	Nearly all drained.
Illinois River Valley.....	124,650	Levee districts recommended by rivers and lakes commission.
Kankakee Valley.....	.....	Nearly all drained.
Kaskaskia River Valley.....	160,000	Levee districts recommended by rivers and lakes commission.
Little Wabash and Skillet Fork Valleys.	128,000	Flood protection project. Plans published by rivers and lakes commission levee districts. No work done.
Spoon River Valley.....	16,000	Levee districts recommended by State geological survey.

Summary of drainage projects and large swamps in the northern division—Continued.

INDIANA.

Project or swamp.	Acreage.	Remarks.
Kankakee Valley.....	400,000	All drained or being drained.
Patoka Valley.....	30,720	Overflowed lands; districts being formed for the reclamation of the greater part of these.
Slash Lands.....	51,200	In southeastern Indiana. A tile-draining problem for individual farmers and small districts.

MICHIGAN.

Cyr, Marquette County.....	36,000	High elevation, cold climate, soil variable, mostly cut-over timber land, easily drained.
Menominee, Menominee County.....	30,000	Easily reclaimed and apparently a good soil. Some levels have been run by the county and a few soil samples reported on by the agricultural agent.
Tahquamenon, Luce, and Chippewa Counties.	90,000	An attractive and promising project in the northern peninsula. Cut-over timber lands and natural meadows with fair soil. Extensive surveys necessary to decide feasibility.
Saginaw, Saginaw and Bay Counties....	90,000	A large project with good soil, including swamp reclamation and flood protection, involving navigation and many other interests. Estimated cost, above \$2,000,000.
Seney, Schoolcraft County.....	200,000	Said to be a poor soil so far as known. A project doubtful merit.

MINNESOTA.

Koochiching, Koochiching County.....	200,000	90,000 acres are public land; balance private and State owned. Some drains built. Peat soil 2 to 7 feet deep. Costly to clear; not attractive. Drainage not difficult. Timbered with light to heavy growths. Swampy with a few sandy "islands."
Red Lake, Beltrami and Clearwater Counties.	400,000	Includes about 275,000 acres of Indian lands. Balance is public. In addition, 100,000 acres of State and private lands can be included. Heavy peat soil. Some drainage already accomplished. Land is expensive to clear. War Department studying this project. Open swamp with some light timber.
Roseau River, Roseau and Kittson Counties.	110,000	Private and State owned. Some drains built. Shallow peat soil. Involves river improvements and diversion of Roseau River flood waters; also drain construction. Well worth consideration. Open grass land. One-half is a swamp, balance is flood land.

MISSOURI.

Black River, Butler and Stoddard Counties.	350,000 175,000	2 new districts and several old ones require protection from St. Francis and Black Rivers. Believed to be desirable Federal project; no pumping. More investigation desired. We designate this Black River drainage project.
Elk Chute, Pemiscott County.....	340,000 125,000	For new settlement; counting 60,000 acres in Dunklin County, there are here 340,000 acres requiring reclamation or improvements. The United States should be able to secure a feasible project here. Additional investigation desirable. We designate this the Elk Chute drainage project.
Lincoln County project, Lincoln County.	20,000 to 100,000	North of Cuivre River is an area of low land that needs investigation. Large area of low land, but unreclaimed position unknown. This land continuous with Dardenne-Paronne district would mean levee construction along the Mississippi.
New Madrid project, New Madrid County.	100,000 30,000	For new settlement; southern Mississippi and eastern New Madrid Counties require additional reclamation in shape of intercepting canal, pumping plant, and collection ditches. Behind good levee. Expensive project.

Summary of drainage projects and large swamps in the northern division—Continued.

MISSOURI—Continued.

Project or swamp.	Acreage.	Remarks.
Northwest Missouri project.....		There are undoubtedly several tracts along the Missouri and tributaries both east and north of Kansas City that would make attractive projects in every way except that of providing new settlement. It is suggested that the initiative in the matter be left with the State.
St. Charles County project, St. Charles County.	26,000	Dardenne-Peronne drainage ditch contemplated. Nearly all in cultivation. Not much chance for the United States. Should be greatly enlarged and include protection from the Missouri. Mississippi and Missouri River levees necessary.

NEBRASKA.

Elkhorn, Madison County.....	700	City and farm property. North fork of Elkhorn River overflows part of Norfolk and adjoining farms. Channel requires improvement. A local drainage board is now at work. Department of Agriculture is cooperating.
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NEW JERSEY.

Great Piece meadows and near-by swamps in Passaic River Valley, Essex and Morris Counties.	¹ 22,323	This is a very old project and very worthy of being reclaimed by one of the three methods mentioned in report. Aside from probable good agricultural value, the mosquito pest would be abolished in this vicinity. Possible cooperation with the State and Essex County mosquito extermination commission is suggested.
Reiser Farms Co. lands, Essex or Bergen County.	880	This is a pumping project already completed. Land being cultivated. Is a part of the Hackensack meadows just south of Hackensack. Organized as Teetersboro. Owner, W. C. Teeter, 111 Broadway, New York City. Expected that it will later be developed as sites for factories.
Pine barren lands, Newtonville Land Development Co.		Cut up into many tracts.
Weymouth tract.....	² 5,000	Owned by Colwell estate, Philadelphia.
Davis tract.....	² 1,500	Owned by Frank Davis, Mays Landing, N. J.
Weymouth Town Farm Association....	² 9,000	
East Hammonon tract.....	1,100	
Dan Frazier tracts.....		Large munitions plant is leasing 8,300 acres of these tracts. These two tracts comprised all of the Wharton holdings in Hammonon, Galloway, and Muellaca townships. Majority of land good for farming. One-fourth probably marsh, good for cranberries.
Gilbert & O'Calligahanan.....	² 10,000	Around McKee City. NOTE.—All the above "Price barren lands" have been subdivided into small tracts, many of which have been sold off, which would practically prevent their development in large tracts even if otherwise advisable.
Wharton tract.....	100,000	This tract has been suggested for development by the New Jersey State officials in case any large tract of this character is reclaimed in New Jersey. It is mostly in the "Pines" region.
Salt Marsh Lands, all coast counties....		These marches were only visited in vicinity of Hackensack and of Atlantic City on the Great Egg Harbor River. They are all gradually being drained by the mosquito extermination commissions in the various counties. Salt marsh reclamation is not recommended at present as a Government project.

¹ Extreme flood.² About.

Summary of drainage projects and large swamps in the northern division—Continued.

NEW YORK.

Project or swamp.	Acreage.	Remarks.
Montezuma marsh, Cayuga, Seneca, and Wayne Counties.	40,000 or 50,000	Muck marsh at foot of Lake Cayuga. Divided into several projects by Barge canal and railroads and therefore capable of reclamation in several units with separate outlets. Report not yet prepared, as some data lacking. Doubtful if such a large area of special crop land advisable at present.
Sangerfield swamp, Oneida and Madison Counties.	15,000	This is a swamp 9 miles long and one-half to 1 mile wide. Practically covered with evergreens. Upper half easily drained. Dam must be removed to drain lower end. Not recommended.
Oak Orchard swamp, Genesee County..	11,000	There are about 8,000 acres of muck land in tract. There have been cultivated 2,000 acres of higher land and 800 acres of the muck. The drainage has been successful but laterals should be closer. Too much money has been spent on this project so it has failed financially. 500 acres of muck were cultivated in 1918 by renters who paid \$35 per acre rental. Inasmuch as this land is now being cultivated and would not throw any large new body of muck land on the market, it doubtless would make a very good project to take up if purchased at its intrinsic value and not at the amount it has cost by extensive management. No report has been written on this project as yet. A. G. Hoyt, president, Western New York Farms Co., 55 Wall St., New York City (National City Corporation).
White, Ware, and White tract, Genesee County.	100	This has been a very successful muck swamp reclamation. Started 1901 by Bonney & Ware. I understand it is only muck reclamation in State having both drainage and irrigation. The drainage waters are pumped out. 3 pumps are used. Tract lies about 1 mile east of Batavia.
Cicero swamp, Onondaga County	18,000	Compact body, most wooded. Muck soils. East end perhaps (100A) drained by Mr. Geo. Sears, attorney, Syracuse; west end drained and cultivated by Syracuse Gardens Co. David B. Caese, 71 Broadway, New York City, chief owner. Main swamp easily and cheaply drained. Not as yet reported upon.
Hudson tract, Greene County.....	15,000	Consists of a number of farms that can be bought for \$30 to \$50 per acre, located in Hudson River Valley. An attractive possibility.

NORTH DAKOTA, MINNESOTA, AND SOUTH DAKOTA.

Boise de Sioux, Traverse, Roberts, and Richland Counties.	55,000	Flood land; open, flat. Private land. Involves development of Lake Traverse for storage and improvement of Boise de Sioux channel. Would tend to reduce Red River floods. Worthy of consideration as a relief measure.
Red River, Big Stone Lake, Big Stone and Roberts Counties.	.....	Involves control of Minnesota River by storage in Big Stone Lake and Lac qui Parle to reduce floods in valley. Private lands. Worth consideration.
Red River, Otter Tail Lake, Otter Tail County.	.....	Involves use of lake for storage as part of plan to relieve Red River floods. Watershed is not sufficient to influence Red River. Not worthy of consideration.

OHIO.

East of Toledo, Erie shore swamps.....	4,480 12,800 1,920 1,000	A large part has been reclaimed. More being reclaimed. No project for the United States.
St. Marys River Valley.....		Flood protection. Not recommended. Too expensive.
White clay districts.....		In southwestern Ohio. Similar to slash lands in Indiana, a tile problem for farmers.

¹About.

Summary of drainage projects and large swamps in the northern division—Continued.

SOUTH DAKOTA.

Project or swamp.	Acreage.	Remarks.
Britton, Marshall and Brown Counties..	100,000	Swamps, sloughs, and lakes. Private settled land. Outlet for drainage is James River. Drains now being built by Marshall County.
Columbia, Brown County.....	8,000	Open, swampy land. Private land in Big Slough. Too low to be entirely drained. James River outlet. A county proposition.
Gayville, Yankton and Clay Counties....	33,000	Open grass land. Private land bordering on a long slough. Drainage district formed. Matter in litigation.
James River, entire valley.....	190,000	Excellent open valley lands. James River channel requires improvement to prevent overflow and afford adequate drainage outlet. Private settled farm lands.
Long Lake, Sanborn County.....	40,000	Open grass land. Private settled land. Sour gumbo area. Outlet is James River.
Yankton, Yankton County.....	3,500	Good farm land. Private land. A short channel is required to restore James River to old bed to prevent flooding valley.

WISCONSIN.

Bad River, La Point Indian Reservation, marsh, Ashland County.	16,000	This marsh lies in Ashland County on the southern shore of Lake Superior. The acreage given is unallotted land. It is largely open marsh, practically at lake level. The timber is to be cut off soon. This would be a pumping proposition, and reclamation is probably not warranted at present. Examination as to seepage would first have to be examined. Owing to natural sand dune rim, the amount of losses would be little, comparatively.
Barber Lake, Sawyer County.....	(1)	Compact marsh, easily drained. Owned by Edward Hines Farm Land Co., Winter, Wis. This seems a good project if drained marshes or swamp are desired in this section. Could probably be purchased at fair price.
Burnett County.....	50,000	Two large, loosely connected areas. Owned mostly by the Cook Carpet Co., New York City. Bought for from \$2 or \$3 to \$30 per acre. Used for raising wire grass. No project.
Douglas County.....	50,000	Two large, loosely connected swamps about 30 miles south of Superior, Wis. Mostly timbered with evergreen.
Dousman, Waukesha County.....	7,000	Mostly a hay marsh.
Flambeau Marsh, Vilas County.....		This is largely an open marsh, the drainage of which is seemingly easy.
Fond du Lac, Fond du Lac County.....	4,000 3,200 2,500 2,000	County contains no large project.
Forest, Forest County.....		County contains a large amount of swamp, but its reclamation is not recommended at present.
Glacial Lake Wood County drainage ditch, Wood County.	7,000	Muck swamp project, well drained, largely constructed. Only partly cultivated. Probably considerable portion could be purchased. Good soils. Near Grand Rapids, Wis.
Kert drainage ditch, Wood County.....	10,000	Same as above; 60 per cent cultivated in general: \$116,500 spent.
Remington drainage ditch, Wood County.	42,000	Silt and clay under muck; 80 per cent cultivated: \$121,000 spent.
Cranberry Creek drainage ditch, Wood County.	19,175	Probably best open ditch drained swamp in Wisconsin; \$135,000 spent.
Portage County drainage ditch, Portage County.	56,000	Good proposition, but lands held too high; \$265,000 spent.
Leola, Waushara County.....	15,000	Part thoroughly and part partially drained. Probably higher in price than the above mentioned, even if any sizable area could be purchased. Mr. Vaughn considers this equal to if not better than any other district in Wisconsin.
Yellow River town ditch, Juneau County.	25,000	Muck swamp; probably more shallow muck than above and more sandy subsoil. Large areas could doubtless be purchased reasonably. Drainage not complete enough at present.
Little Yellow River drainage ditch, Juneau County.	55,000	\$300,000 completed work; \$120,000 in progress. Probably better than the Yellow River town ditch district. Probably large areas available: 120 miles of ditch.
Beaver drainage ditch, Juneau and Jackson Counties.	34,000	\$160,000 spent. Main drainage mostly constructed, but most of land not used. Large areas probably obtainable at fair price.

Summary of drainage projects and large swamps in the northern division—Continued.

WISCONSIN—Continued.

Project or swamp.	Acreage.	Remarks.
Cutler drainage ditch, Juneau County...	21,000	\$104,000 spent. Fifty miles of ditches. About 14,000 acres are owned or controlled by the B Land Co., Des Moines, Iowa. District about half sand and half muck. Adapted to general agriculture. Probably not open to purchase.
Orange drainage ditch, Juneau County...	8,500	\$25,500 spent.
Juneau County drainage ditch, Juneau County.	14,400	\$36,000 spent.
Dancy drainage ditch, Marathon and Portage Counties.	33,000	Only partly drained muck swamp district. Lacks intercepting ditches between higher lands and swamp. Main outlet needs deepening. Hour Creek subdivision thoroughly drained and producing. Most of swamp could probably be obtained at very fair prices. Two hundred and twenty-eight thousand dollars spent. Very desirably located with improved lands on all sides.
Dandy Creek drainage ditch, Monroe and Jackson Counties.	35,000	\$120,000 spent.
Lemon weir drainage ditch, Monroe County.	12,000	\$25,000 spent.
NOTE.—Many of the above are adjacent to or near each other. The intervening strips of land are either higher sandy or sandy loam lands or muck lands which have been left out of districts on account of ownership or other causes. By the expenditure of a little time on the project some fairly large tracts could doubtless be secured in some of these drainage districts, which together with some of the bodies of land mentioned below would make sizable and desirable projects. This glacial lake area has the great advantage of location, climate, improvements, transportation, etc., not found in the projects farther north in Wisconsin. A further investigation is suggested.		
Horrecom, Dodge County.....	32,000	Hay marsh. Drainage prevented by a dam.
Kewaunee, Kewaunee, County.....	3,840	Recommended for development by local interests.
	1,920	
	2,240	
Langlade, Langlade County.....	5,000	Drainage of this swamp not recommended at present.
Manitowish marsh, Iron County.....		Large compact body easily subdued. In cold zone of Wisconsin. County too undeveloped at present to undertake the drainage and cultivation of these marshes.
Manitowoc, Calumet and Manitowoc Counties.	10,240	Rock work necessary for drainage. Seems to merit further investigation.
Marinette, Marinette County.....		No project recommended.
Moose River, Ashland County.....	60,000	Undeveloped timbered swamp. No roads nor settlements. In large holdings by lumber companies. Too soon to attempt reclamation. Swamps are headwaters of the Upper Chippewa River.
Navarino, Shawano County.....	8,960	Soil conditions doubtful. Small.
Peshigo, Oconto County.....	16,640	A soil survey may prove this to be a feasible project.
	1,000	Cut-over timber, still logging.
	1,000	Sam Johnson Marsh, undrained.
	2,000	Deer Tail Marsh, drained.
Rusk County Marshes, Rusk County....		First and second addition to Deer Tail Marsh, drained.
	2,000	Counsoth Marsh, drained.
Rusk and Sawyer Counties.....	3,000	Bear Creek Marsh, undrained, largely open.
Swamps between Flambeau and Chippewa Rivers, Rusk County.	10,000	Large undrained swamp southwest of Ladysmith interspersed with islands and surrounded by roads. L. R. Warner estate own about 5,600 acres, appraised at \$6 to \$25 per acre. Will sell easily drained. Muck underlain with thorn-apple clay loam. Project recommended.
Scuppernong, Jefferson County.....	12,800	A hay marsh. Doubtful about fall sufficient for drainage. Otherwise a good prospect.
St. Croix River, Douglas County.....	30,000	Reclamation not recommended. Soil survey states these bottoms are stony and of doubtful agricultural value. This is really a water-power proposition. Possibly 30,000 horsepower from three dams if properly located. Owned or controlled by the St. Croix Timber Co., Stillwater, Minn. The Farmers Land & Cattle Co., St. Paul, are shown as owning part of flowage lands.

Summary of drainage projects and large swamps in the northern division—Continued.

WISCONSIN—Continued.

Project or swamp.	Acreage.	Remarks.
White River, Bayfield County	18,000	This is only large swamp area in county. Preliminary drainage and soil survey already made by University of Wisconsin. Good soils, mostly including considerable muck. Development interfered with by war. Good proposition. Easily drainable. Small dam to be removed in White River. Can doubtless be bought cheaply. Mostly \$5 or \$6 per acre, according to information received.

SUMMARY OF CUT-OVER INVESTIGATIONS.

The work of investigating cut-over areas in the northern division has been divided into five areas, namely: The Pacific, the Rocky Mountain, the Great Lakes, the Ozark, and the Atlantic.

The lands and projects in these groups by States available for settlement are as follows:

Pacific group:	Acres.
California, 7 projects	762,000
Oregon, 10 projects	1,570,800
Washington, 12 projects	1,702,100
Total	4,034,900

NOTE.—The lands of this group are in the Redwood and Douglas fir region mainly and are expensive to clear. Much of the soil is good and rainfall is sufficient to produce crops.

Rocky Mountain group:	Acres.
Idaho, 9 projects	2,047,000
Montana, 7 projects	1,321,000
Washington, 2 projects	341,700
Total	3,709,700

NOTE.—The lands in this group are in the pine and larch regions of the Rocky Mountains and are less expensive to clear than are those of the Pacific group, although they are more expensive to clear, generally speaking, than the hardwood and white pine areas of the regions in central and eastern United States. The soils are generally good. The rainfall is a little too scant and a little too poorly distributed for cropping without irrigation. Irrigation, however, is not a necessity but a benefit for farming in this region.

Great Lakes group, many proposed projects:	Acres.
Michigan	3,799,000
Minnesota	5,374,000
Wisconsin	6,184,000
Total	15,357,000

NOTE.—In these three States there are many areas sufficiently compact and large to make suitable projects. One area of 50,000 acres has been selected in the Upper Peninsula of Michigan. This has been designated the Ontonagon project. Another area of 50,000 acres has been selected in the Lower Peninsula of Michigan and this area has been designated as the Thunder Bay project. In northwestern Wisconsin a project of 200,000 acres has been selected which has been termed the Chippewa project. In northeastern Minnesota a project designated as the Itasca project has been selected. This project contains 100,000 acres. These areas can be selected so as to utilize areas only with excellent soil.

Ozark group, Missouri:

NOTE.—Investigations in Missouri have been completed, but the office data have not yet been worked up, so that it is impossible to state at this time what may be the result of the investigations there. It is known, however, that there are about 13,000,000 acres of cut-over lands in the State. What proportion of this area is considered suitable for agriculture will be brought out in the report when it becomes available.

Atlantic group:	Acres.
Maine, 1 project.....	10, 000
Massachusetts, 1 project.....	60, 000
New Hampshire, 1 project.....	10, 000
New York, 1 project.....	15, 000
Total.....	95, 000

NOTE.—The reconnaissance of the Atlantic group area has not been fully completed and it is probable that other area will later be found. The soils of the Atlantic group are practically all of glacial or fluvatile origin. Owing to the heavy rainfall in this region the lime, and to a certain extent the phosphorus, contained in the soil have been removed and these elements must be supplied for successful agriculture.

Below is given a summary of the areas of cut-over lands in the various groups:

	Acres.
Pacific group, 29 projects.....	4, 340, 900
Rocky Mountain group, 18 projects.....	3, 709, 700
Great Lakes group, many projects.....	15, 357, 000
Ozark group, projects unknown.....	
Atlantic group, 4 projects.....	95, 000
Total.....	23, 502, 600

MEMORANDUM FOR THE SOUTHERN DISTRICT.

[H. T. Cory, Jan. 7, 1919.]

The southern district consists of all the States south of the Mason and Dixon line and the Ohio River and east of the ninety-eighth meridian, in a general way. It includes Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia, and the eastern part of Texas.

ALABAMA.

Up to date there has been a total acreage of 883,000 acres offered in this State consisting almost exclusively of inland terrace, cut-over lands, most of which will require only incidental drainage. Practically all of this land has been personally inspected and reported upon. At the present time a further inspection of definite contiguous projects ranging from 80,000 to 123,000 acres in size is being carried on. There apparently will be a choice of three very satisfactory opportunities for a colony of at least 100,000 acres. To assist in making such choice the agricultural committee of the State Council of National Defense for Alabama will act.

Rather particular attention is being paid to the possibilities of securing a colony in the southeastern corner of Alabama and the southwestern corner of Georgia with the idea of having a two-State colony at that point. No decision will be reached as to the desirability of such a two-State colony until a definite plan can be presented to the representatives of the two States.

ARKANSAS.

The work in Arkansas is being carried on in cooperation with a committee called "The farms for soldiers and sailors committee," of which the governor of the State is a member, and the chairman is Mr. Fred Heiskell, editor and proprietor of the most influential journal in Arkansas. There have been offered in this State 1,872,880 acres, most of which has been personally examined by representatives of this department. Of this about half are inland terrace, cut-over lands which would require only incidental drainage, and the remainder consists of either delta alluvial land in the Mississippi and other valleys and coastal alluvial in the general Coastal Plain area, which extends practically across the southern edge of the State. The Arkansas committee believes that in the event Secretary Lane's plan is worked out and an active campaign is put on list of additional acreages, that there will be at least 1,000,000 acres of alluvial land, 2,000,000 acres of Coastal Plain land, and 2,000,000 acres of mountainous grazing land, a total of 5,000,000 acres. Definite large-sized tracts are now being examined in Arkansas, and apparently it will be impossible to secure colonies of more than 50,000 acres each. It will be possible to secure several of that size.

The average price of land entirely suitable for the purposes at hand will be about \$9 per acre.

FLORIDA.

The governor of Florida has appointed a committee consisting of Mr. Coachman, Mr. Jules M. Burguières, and Mr. Storrs. This committee agrees with representatives of the department that perhaps the best opportunity is to be found in the Everglades, where the State of Florida owns 1,200,000 acres of land. Negotiations are pending and there is considerable reason for hoping that the internal improvement board of the State, which holds title to this 1,200,000 acres of land, may donate approximately 300,000 acres in the Everglades for the purpose.

In addition to Everglade lands there have been offered tracts of cut-over highlands suitable for general agriculture varying from 30,000 to 200,000 acres in solid bodies.

Most of these large tracts have been personally inspected. The average price of lands outside the Everglades will be about \$8 per acre.

GEORGIA.

The governor of Georgia has appointed a committee of seven to cooperate with the department, the chairman of which is Mr. Alexander K. Seessoms, with headquarters at Waycross, Ga. Approximately 600,000 acres have been offered in this State and lie in colonies of from 100,000 acres up to 180,000 in size. A total of five such colony opportunities have been personally inspected and a representative of the department is now on the ground going over these five colony opportunities with the chairman of the Georgia committee in considerable detail, with the view of classifying these opportunities in the order of their respective desirability. As mentioned under the heading of Alabama, the possibility of a colony partly in Georgia and partly in Alabama is being particularly looked into.

Practically all the lands being considered in this State are low-lying, cut-over lands which will require incidental drainage and perhaps a little more than that.

The average cost of lands in Georgia will be about \$7 per acre.

KENTUCKY.

No committee has yet been designated by the governor of Kentucky to cooperate with the department. The president of the State University has held conferences with the department representatives, and he is expecting to arrange with the governor of Kentucky for the appointment of a committee.

The opportunities for colonies in Kentucky will be in the eastern mountainous portions, where a stock-raising colony of large acreage, at least 150,000, can be secured. In this case considerable of the land will be secured excluding the subsurface mountain and coal rights.

Another and different type of colony will be in the western portion of the State.

No definite examination of projects will be feasible until the committee, which has not yet been appointed for Kentucky, determines the type of colony or colonies which the commonwealth would prefer. This in turn will depend upon the amount of money available, and hence the magnitude of the operations.

Mountainous cut-over land for the eastern part of the State can probably be secured at an average price of \$9 per acre.

LOUISIANA.

Over 3,114,240 acres have been offered for the purpose in Louisiana. Of this 825,000 is inland terrace cut-over land requiring incidental drainage, and the remainder alluvial lands.

In Louisiana there are two general types which obviously offer themselves for consideration, namely, the low-lying wet lands and the so-called high pine lands. The former will require rather elaborate drainage and occasional leveeing protections, while the latter will require but incidental drainage. A very considerable percentage of the acreage offered in Louisiana do not name definite figures but offer the land at a price to be fixed by the Secretary of the Interior.

Generally speaking the average cost of land in Louisiana will be about \$8 per acre.

MARYLAND.

The agricultural committee of the State Council of National Defense is for the present cooperating on behalf of Maryland with the representatives of the department. It is possible that the governor may appoint a special committee for the purpose, but he has not yet done so, and probably the agricultural committee of the Maryland State Council of National Defense will continue to function in this matter.

In general, this committee agrees with the department representatives that a colony of approximately 20,000 acres is the maximum which can be secured in that State, suitable from every consideration, and that there are two or three opportunities for such colonies on the Eastern Shore. In particular one tract of land in solid body, containing approximately 14,000 acres, and lying within 30 miles of Baltimore, seems well suited for the purpose. This land was bought at a cost of \$14.35 per acre about four years ago, and the present cost would be this amount plus carrying charges since. Roughly speaking, land in Maryland will cost an average of about \$20 per acre. The opportunities in Maryland have been personally inspected by department representatives.

MISSISSIPPI.

A total of 905,070 acres have been offered in Mississippi, of which three-fourths is inland terrace, cut-over land requiring but incidental drainage. All of this land has been personally examined, and a representative is now going over three definite colony possibilities each of 100,000 acres or more in extent, as solid tracts.

The average cost per acre of this land will be about \$9.

NORTH CAROLINA.

Five colony opportunities ranging from 100,000 to 225,000 acres in solid tracts have been offered and examined by department representatives. All of these are in the coastal plain and relatively low-lying land. Seventy-five per cent of each of these tracts will be so-called high pine lands, requiring but incidental drainage, and the remainder will be very shallow, long embryonic, drainage channels, which are locally known as swamps.

All of this land may be secured at an average price of \$7 per acre.

OKLAHOMA.

The present governor of Oklahoma will be succeeded by another executive in a few days. Nevertheless a committee has been appointed and a representative is investigating definite colony opportunities, both of cut-over lands and State-owned lands. The State of Oklahoma owns many hundred thousand acres, and the feasibility of utilizing any of these for the purpose at hand is being carefully gone into. At the same time examination of other colony possibilities is being made. It is possible that the State of Oklahoma may give lands for a project, but at present it seems rather improbable that anything of the sort will be done.

The average price of lands in this State will be probably about \$10 per acre.

SOUTH CAROLINA.

Four definite projects ranging from 100,000 to 185,000 acres in extent have been offered in South Carolina and inspected by representatives of the department. All these lands, like those of North Carolina, are low lying, coastal plain, cut-over pine lands, and will require rather more than incidental drainage. They also will consist of about 75 per cent pine lands and 25 per cent so-called swamp lands—swamp lands here being used exactly in the sense as explained under the heading of North Carolina.

The cost of lands in this State will be about the same as in North Carolina, namely, \$7 an acre.

TENNESSEE.

Two or three committees in Tennessee not correlated to each other have been cooperating with the department, and on the 11th it is expected to hold a meeting in Memphis and secure a general consolidation and concentration of activities. There is, however, unanimity in the feeling that the proper location for colonies in Tennessee should be on the Cumberland Plateau, which has an elevation of about 1,800 feet above sea level, and the Highland Rim, which has an elevation of about 10,000 feet above sea level. Investigations by the department's representatives indicate the feasibility of several colony opportunities of several hundred thousand acres.

The average price there would be \$8 per acre.

TEXAS.

In east Texas a total of 1,985,680 acres have been offered and practically all of this examined by department representatives, 276,000 acres of short-leaf pine and hardwood type, 1,318,980 acres of long-leaf pine type, 390,700 acres of coastal prairie type.

All of them are cut-over lands, and would require incidental drainage except the last, which would require rather elaborate drainage systems. Definite colony opportunities of 100,000 acres and over are now being more carefully examined by department representatives.

The average price of land here is about the same as elsewhere, namely, \$5 to \$12 per acre, with an average of perhaps \$9 per acre.

VIRGINIA.

The governor of Virginia will appoint a committee of perhaps 11 people, one from each of the 10 congressional districts and a representative from the State University. This committee will cooperate with the department representatives in selecting definite colony areas within this State.

In a general way there are two obvious types of opportunities in Virginia, one the swamp lands in the southeast corner, constituting a portion of the famous Dismal Swamp, and the other in the Piedmont, or Upper Coastal Plain, region. By this is meant a type of land such as that about Richmond, Petersburg, etc. This was at one time the agricultural section of the Old Dominion, but since the Civil War has been, and still is, in a very backward state of rural development. Much of this land has been personally inspected by department representatives and assurances made that bodies of 100,000 acres could be secured at an average price at not exceeding \$25 per acre for colonization purposes. The actual securing of options because of an adverse ownership, averaging perhaps 300 acres per owner, involves considerable expense, and it has not been deemed desirable to incur this expense until some idea can be obtained as to the funds available and the magnitude of the colonies which should be planned.

The swamp lands in the southeastern corner would cost about \$12 per acre.

In some respects the situation in Virginia is not so obvious as in other States because the indications are that the Virginia committee will decide upon a colony in the sub-Piedmont section, where ownerships are diverse and large bodies in a single tract were not to be found.

On the other hand, financially strong, public-spirited men have already indicated their intention of forming a pro bono publico corporation of \$2,000,000, if necessary to buy the small owners out and turn the lands over to the Government as a large corporation and for the actual cost to such corporation of the lands. Indeed, it seems probable that Virginia will be one of the most satisfactory States with which to deal.

WEST VIRGINIA.

The governor of West Virginia has requested that no investigations be made in that State until after the legislature, which convenes on the 10th instant, shall have acted on the general program. Informally he has advised that unless legislation on the so-called State bill shall have been secured he will appoint a committee which will aggressively cooperate with the department representatives in selecting locations for a colony or colonies in this State.

In a general way it would appear that colonies for raising stock in the mountainous grazing sections would be selected. Here there are 2,500,000 acres of cut-over and coal lands held by coal companies in tracts of 10,000 acres and more, and it is stated that excellent blue-grass pasture of cut-over lands can be secured—surface rights only—for from \$3 to \$7 per acre.

* * * * *

In some of the States, particularly those in the Atlantic and Gulf Coastal Plain States, the Government will be able to deal directly with three or four holders owning large acreages for all the lands desired in any particular selected colony. In some other States, such as Virginia, it is probable that public-spirited men of financial strength will have to be asked to form pro bono publico corporations to secure the lands in fee and cooperate with the Government on a partnership basis.

It is quite improbable that any State in the district will as a State make any appropriations except possibly small ones to pay expenses of committees appointed to cooperate with the department representatives. This fact, however, is not significant because of the very earnest enthusiasm which Secretary Lane's program has evoked in the South generally and the easy possibility of handling matters either by the large companies in the Atlantic Gulf and Coastal Plains sections or by the method which is tentatively planned to be followed in Virginia and has heretofore been described.

	Total acreage offered.	Personally inspected.	Size of colony possible.	Number of such colony sites ex- amined.	Average price per acre.	Ownership con- templated.
Alabama.....	883,000	800,000	100,000	3	\$10	Fee.
Arkansas.....	1,872,000	1,750,000	50,000	5	9	Do.
Florida.....	2,000,000	1,500,000	300,000	4	0 to 12	Do.
Georgia.....	600,000	600,000	100,000	5	7	Do.
Kentucky.....			150,000	2	9	Fee and surface..
Louisiana.....	3,114,240	2,800,000	100,000	3	8	Fee.
Maryland.....		50,000	15,000	2	20	Do.
Mississippi.....	905,970	850,000	100,000	3	9	Do.
North Carolina.....	700,000	700,000	100,000	5	7	Do.
Oklahoma.....		150,000	(?)	(?)	10	Do.
South Carolina.....	5,700,000	570,000	100,000	4	7	Do.
Tennessee.....		200,000	100,000	3	8	Fee and surface.
Texas (East).....	1,985,600	1,750,000	100,000	3	9	Do.
Virginia.....		500,000	100,000	3	25	Fee.

Mr. BYRNES. Did you personally make this examination, Mr. Davis?

Mr. DAVIS. It was made under my charge, but made in the North by Mr. Hanna and in the South by Mr. Cory, and their assistants. The statements I hand in are written by those gentlemen.

Mr. BYRNES. What is the result of your survey?

NORTH.

Mr. DAVIS. Taking the North, we find that there is apparently a very good drainage project that is partly in North Dakota, partly in South Dakota, and partly in Minnesota, and the examination of that project is now under way. There are also several drainage projects in northern Minnesota that appear promising, one of which is already under examination. There are also in Minnesota large areas of cut-over lands. We have only roughly obtained the location and area of those, and an examination of the soil is important and should be taken up when we are ready to do so. In Wisconsin there are some drainage projects and a very large area of excellent cut-over lands, where projects of practically any size could be obtained. Michigan has a number of both drainage and cut-over land projects that are favorable.

Mr. BYRNES. As to the cut-over land, is it fertile soil?

Mr. DAVIS. Parts of it are fertile. There are some places where the soil is sandy and not promising and in some places the land has too much peat; but there are large areas in all three of those States where the soil is excellent.

Mr. BYRNES. When you made this examination did you make it having in view whether or not that land could be procured for the purposes intended?

Mr. DAVIS. Yes, sir. We have not in those States, however, attempted to obtain any options upon the lands nor fix the price in a way that would be binding upon the owners. That, of course, would be necessary before we made any considerable examinations as to soil or other qualities.

Then we have made examinations in Ohio, Indiana, and Illinois, but we did not find any promising projects in those States, and the same is true of Iowa. In those States there are places capable of

drainage, but they are small and hardly worthy of national effort. I think they will probably be developed through private enterprise as most of the tracts there have been. There were formerly large areas of swamp lands in Ohio, Indiana, and Illinois, but they have mostly been reclaimed. We have made no examination yet in Pennsylvania, but I am told by the agricultural authorities of that State that there are good cut-over land projects to be found in Pennsylvania; personally I do not know about them.

In New York we know there are projects of several kinds available, and there are two or three drainage projects on which we are beginning an examination that appear favorable. There are areas in that State where it will probably be feasible to purchase unused lands not exactly of the character described in the bill, but we have not yet examined those. I do not exactly mean unused lands, but neglected farm lands. Areas of that kind can be found and in some cases they are sufficiently concentrated to warrant the establishment of a community.

Mr. BYRNES. How near to a city are those lands—that is, to a possible market?

Mr. DAVIS. In all the cases we have examined they are within convenient reach of railroad transportation, but in some cases not very close to large cities. There is one project that might be availed of, we think, in the neighborhood of Albany. Ten or twelve thousand acres could be gotten there—nearly solid—of very good land, that has been farmed by tenants largely and is, to a considerable extent, neglected not because it is not good land but for various reasons. There are lands in that area which are of the same character and which are well farmed.

Mr. GILLETT. Is not that true throughout the United States, generally?

Mr. DAVIS. No, sir; I think not generally. There are such tracts as that to be found particularly, I think, in the State of New York and in the New England States, where the manufacturing industries have attracted people from the farms or where the impulse to go west has been found.

Mr. GILLETT. That would not be true of Ohio, Indiana, and Illinois?

Mr. DAVIS. We do not find such conditions there; no, sir.

Mr. GILLETT. There the land that is really arable is pretty well occupied?

Mr. DAVIS. Yes, sir. In Iowa and, in fact, in all of those States there are a great many tenant farmers and they are not conserving the fertility of the land, but the land can not be purchased very cheaply.

Mr. GILLETT. There are no tracts which are not now being used?

Mr. DAVIS. No, sir; not to any extent. The fertility problem, though, is sufficiently acute, so that I think there will be in those States eventually, because they are getting to the point where they need commercial fertilizers, and they are applying them in some of the States, at least in Ohio and Indiana, and, to some extent, in Illinois, and they are beginning in Iowa, but not to the extent that they have been applied in Ohio and Indiana.

In New England we have as yet made no field examination, except our reconnoissance. I saw what appeared on their face to be two

very good projects in the State of Massachusetts. There are said to be good projects in New Hampshire, and, in fact, I saw one that has been designated as a good project, but it has not been examined yet to such an extent that I could pronounce definitely on it.

Mr. BYRNES. Where was that in New Hampshire?

Mr. DAVIS. Near Nashua. The land is somewhat sandy, is cut-over land and not used. At the present time it is growing up in brush and I think there is a good chance of finding a very good project there—depending somewhat on the price at which the land can be purchased.

Mr. GILLET. How much does it cost to get the stumps out of cut-over lands?

Mr. DAVIS. It varies widely. In fact, there is no very marked dividing line between lands that need clearing and lands that do not need clearing. Often they grow a strong sod that requires heavier plowing than land that is cultivated, and from that you run into small brush that can be easily plowed. On this tract at Buzzards Bay the land can be cleared by plowing through it with a powerful plow. Perhaps 10 per cent of the stumps can not be drawn out in that way, but 90 per cent can, although it requires a powerful tractor drawing a very powerful plow.

Mr. GILLET. In Minnesota and Wisconsin you could not do that with a plow?

Mr. DAVIS. No; the stumps there would be too large.

Mr. GILLET. And there it would be much more expensive?

Mr. DAVIS. Yes. In those cases, however, the expense is not nearly so great as in the Pacific Northwest. In the Puget Sound region most of the cut-over lands that could be suitably cleared for agriculture are not feasible for reclamation, on account of the expense of clearing.

Mr. GILLET. Why is the expense so great?

Mr. DAVIS. Because the stumps are so large and the roots grow so deep. They have to be taken out by hand or the use of explosives, and it requires so much excavation and leveling afterwards. Although that is being done and the area is gradually extending, it is being done under the great handicap of heavy expense. We do not regard the possibilities of cut-over lands in the State of Washington as promising for that reason, and the same is true, in a measure, of Oregon.

Mr. GILLET. How much would it average for the cut-over lands in Minnesota?

Mr. DAVIS. I should say that from \$25 to \$40 an acre for clearing would be a fair rough estimate for the Lake States and for the South; in the Northwest it is much greater, and in the Northeast, where the timber when last cleared was very small, it would be much less.

There are areas of cut-over lands in Maine which, I think, will make excellent projects. I have not been in Maine, but from the information I have received, through a delegation that came from there, I think Maine is a very promising State, having possibilities of reclamation, good soil, and so on.

We find in all the States, however, that there are areas that it will not be advisable to reclaim from the cut-over condition, and we believe they can be better left in timber at least until the more favorable areas are placed under cultivation; and still other areas that should be left in timber because the soil or topography is not favorable on

account of its character, in some places being too rocky and in some places being too sandy, or too rough, for the best agriculture.

Mr. BYRNES. What is the average value per acre of the land that is obtainable in Maine?

Mr. DAVIS. I have not data enough to answer that question with much certainty, but the prices that have been quoted to me put it at from \$10 to \$20 an acre.

Mr. BYRNES. What land do you mean?

Mr. DAVIS. The land that needs reclaiming; this cut-over land that I spoke of.

Mr. BYRNES. How would the value of that land when reclaimed compare with the lands now in cultivation, either in the same area or adjoining area, so that we may have some idea as to whether it is worth while to reclaim that land?

Mr. DAVIS. That varies, very widely. There are lands of all kinds that have been cut over. None of the men in our service have examined the Maine lands, and I have not been there, but I am told there are excellent soils in the cut-over lands that will well pay for the reclamation. My opinion would not be of any value as to what they will be worth afterwards.

Mr. BYRNES. From whom did you get that information?

Mr. DAVIS. From a delegation that came from Maine, representing the agricultural college and various other interests in the State.

Mr. BYRNES. You have had no representative of the department in that State?

Mr. DAVIS. No; not in Maine as yet.

Mr. BYRNES. Tell us about some States that you do know something about, and where you have had a representative.

Mr. DAVIS. Well, we have had representatives in most of the States I have mentioned.

SOUTH.

(See p. 894.)

I will now go to the South. I have personally examined some of the lands in the South that I am going to mention, and representatives of this department have examined all of them to some extent.

Mr. HOWARD. What States?

Mr. DAVIS. First, the State of Maryland. That is the one we took up first, and there are promising areas in Maryland, the majority of which need clearing. There are very few lands that need drainage that promise well but, in general, there are lands that have been cut over in the past, sometimes more than once, and not cleared.

In Virginia there are lands of all three characters, the swamp lands, a large part represented by the Great Dismal Swamp, the cut-over lands in the Piedmont region, that are not swamp lands at all, and then there are lands that are interspersed, lands of two characters, cut-over lands and lands that are now partially farmed. Many of the farms down there, of one or two hundred acres, have only a small percentage under cultivation and are not properly farmed. If some areas of the cut-over lands could be acquired they would make good colonies in the Piedmont region and other areas could be reclaimed in the Dismal Swamp and along the James River.

North Carolina is one of the States presenting advantages as great as any other State. There are immense areas there, some of which

need clearing and others that do not, but that need drainage. The drainage, in many cases, would be comparatively easy because the lands are not of an extremely swampy character; they are lands with the water table too high and the topography is of such character that the water does not run off readily, but if provided with sufficient channels by the enlargement of existing channels the lands could be reclaimed, apparently, cheaply. Some of those lands need clearing and some do not. But the area is very great and the excellence of the soil has been proved in some cases and is indicated in other cases.

Mr. BYRNES. What can you buy that land for?

Mr. DAVIS. That land can be bought, depending on its quality and location, for from \$4 to \$20 per acre, and I should say that an excellent project could be obtained there at the present time for \$6 an acre, and certainly for \$10. We can buy land in one ownership amounting to 50,000 acres, and in another case I know of 235,000 acres in one ownership.

Mr. BYRNES. Is that the price for cash?

Mr. DAVIS. Yes. If a credit system were invoked probably the price would be somewhat higher, enough to cover the difference in interest.

Mr. BYRNES. What is your estimate as to the cost of reclamation on a project of that character?

Mr. DAVIS. Well, it varies somewhat widely. One tract that I examined, and which appeared to me on the surface to be rather promising, could be cleared and plowed, probably, for not to exceed \$10 an acre, having only small scattered brush on it and heavy sod: but it needs drainage, which might cost \$15 or \$20 an acre, and the two together would be, say, \$30 an acre for reclamation. Not many projects which are as easy as that can be found. I know of only one where I would say that generally the drainage would cost what I have stated. In great swamps, like the Dismal Swamp, where a complete system of drainage in detail would have to be put in, it would cost more, and might be \$40 or \$50 per acre for drainage. The Dismal Swamp itself is partly in North Carolina and partly in Virginia, and I do not consider it very promising, although the soil is excellent in places. But the combined cost of clearing out all the timber and of putting in a detailed drainage system is higher than the cost of reclaiming lands that would be about as good in other localities.

Mr. GILLET. How can one man own 235,000 acres?

Mr. DAVIS. It is not one man; it is a large lumber corporation.

Mr. GILLET. Then it is forest land?

Mr. DAVIS. Yes, sir; that is, it was when they purchased it.

Mr. GILLET. They just went in and cut it out?

Mr. DAVIS. They have been cutting it for a long time, and a great deal still could be cut; I think it is more than half cut over. A lot of it has been cleared, and it is of two characters. There was some swamp land, and it had to be drained before they could get in to cut the timber, because of the boggy conditions. Drainage was provided simply to the extent of taking off the surface water, and part of the year it is not yet very favorable for work. Then they cleared it, and sawed their lumber up and have undertaken, on a small scale, to clear it for cultivation. They have planted what they call stuck corn, which Secretary Lane described, where they put one or two

grains in the ground with a sharp stick, step on it, and that is all that is done until they come to harvest it. They have gotten from 25 to 50 bushels of corn to the acre in that way. I saw excellent corn, saw it standing, and saw it in the crib. It takes them about four years with that method to clear that class of land. After they have taken off the marketable timber, there is still a jungle of saplings, undergrowth, fallen timber, and stuff of that kind, which they go through, and do what they call slashing, cutting everything down to the ground, except the big stumps. That is done in the summer or fall.

The following May that is dry enough to burn and they take some time between rains, when it is not wet, and set that all afire and burn it. That destroys the weeds and undergrowth that have started up in spring and cleans the land of every green thing, because it makes a very hot fire. Then while the logs are still smoldering they go through and put in this stuck corn. The corn comes up promptly, and that keeps down other growth to a certain extent by its luxuriance. The corn is harvested in the fall and immediately after the harvest they go through and cut out such other sapplings as have come up, pile the remaining logs upon the stumps that remain and set them afire again. The first two, three, or four feet of that land is muck soil; it is nearly all vegetable and when the water is taken out it settles, and in this burning process the surface burns off, but there is too much water in it to burn deeply; it will burn a half inch or two inches, perhaps, and in the period of three years that it takes them to clear it they will settle the land on an average of 18 inches. That settlement leaves the stumps sticking out of the ground so that fire can get in and burn the roots off, and in that way the clearing is, they claim, practically paid for by the corn that is raised during that process, and after three years it is in fairly good shape. But it is still two or three years before it can be plowed because the vegetable soil is not of such consistency that it can be plowed; it is like running a plow through a straw stack, so that the ground does not turn over nicely, but after two or three years more that condition changes and they can plow it. When it is cultivated before it is ready for the turn-over plow they cultivate it with a disk plow, which runs over the ground and cuts what it can.

Mr. HOWARD. In what section of North Carolina is this, the east or west section?

Mr. DAVIS. The coastal plain. Then there are other parts of that same coastal plain that are not in the same condition; the water table is high and they have to be cleared, but there, as a rule, the surface soil is sandy and the under soil is clay, the agricultural conditions are generally good, but the soil needs some lime. Ninety per cent of all eastern lands need lime, as far as our investigations have gone, and some of them need phosphates.

In South Carolina the conditions are very much similar to those in North Carolina; it is a continuation of the same coastal plain, with the same character of topography, and generally the same conditions exist as in the whole of the coastal plain. There are really no swamp conditions, but the land is wet a great part of the year and there are swampy places and sluggish drainage lands, so that the country is practically uninhabitable in its native state on account of mosquitoes. Settlers who have cleared little pieces here and there

and corporations which have made an effort to clear the lands and demonstrate their fertility have succeeded in doing that, even though they have not made a financial success, as they sometimes have not.

They have shown that they can exterminate the mosquitoes, although they have been warned in advance by the people living in that neighborhood that it is impossible to live in that country; that they will be down with malaria and ague in a week; and formerly it was favorable for yellow fever, I suppose. But by providing drainage lines, so that the rainfall could get away promptly, even though they did not lower the water table sufficiently for agriculture, they demonstrated the fact that they could reclaim that country from its malarial conditions. We regard that country as one in which projects can be large enough to permit the successful application of that method of reclamation, so that you can apply the drainage principle and sanitation to an area large enough to make it worth while. It is impossible to reclaim a small area, because it will be contaminated by mosquitoes from the vicinity, and every project will have to be surrounded by a sort of neutral zone that will receive the mosquitoes from the surrounding country. But it is absolutely necessary to exterminate the mosquitoes, or practically so, in order to make that country habitable.

Similar lands can be found in Florida and Georgia. In general the condition in Florida is very different from that in other States. It is the State of all the States of the Union having the largest area of reclaimable lands. To begin with, there are nearly 5,000,000 acres in the Everglades. It is covered with vegetation called saw grass; it has no timber on it, as a rule, and originally was overflowed with water from Lake Okechobee, but that lake has now been drawn down by drainage canals so that does not occur any more. There is a high-water table throughout most of the area, so that it still requires drainage. The surface soil is of a peaty character or muck, as they call it, consisting mainly of vegetable matter. If it were in an arid region, it would some time burn up, but they have never had any instance of that kind in any part of the South that I know of. Any fire passing over it usually burns the surface and then strikes moisture, which prevents the fire going down.

Mr. MONDELL. Is the major portion of that area high enough above sea level to make drainage practicable?

Mr. DAVIS. It is. The elevation is very slight but there is some fall. The present situation is that all the canals leading from Lake Okechobee are closed by artificial dams in order to prevent more water running out than they want to run out. They are trying to hold Lake Okechobee up in order to have it navigable, but during the past year, which has been unusually dry, the evaporation has been greater than the rainfall, and such water as got away they regret. It has gone below the stage which they expected and where they intended to hold it. The surface of the lake is now about 14 feet above sea level while they intended to hold it to 18 feet, with 16 feet as a minimum, fluctuating between 16 and 18. The soil conditions in the Everglades have been, to some extent, examined, but we find conflicting reports concerning them, and there are doubtless differing conditions in places. It has been proved to be very favorable for the growth of sugar cane and large crops of cane have been obtained. In other places they have raised large crops of pea-

nuts and various forage grasses. It has not been farmed extensively nor long in any place.

In Georgia some inquiry was made with regard to the Okefinokee Swamp, and there is possibility that reclamation work might be carried out cheaply. I have not personally examined that but the men who have been sent there report that there is pretty strong local opposition to the reclamation of that swamp for various reasons. I think the principal one is that they hope to get the intercoastal canal through there and that swamp would be the water supply for the level to which they would have to lock up in order to get through that country, so that they do not want it drained for fear it will spoil that project. I know little of the merits of it.

There are abundant opportunities in Georgia, in the coastal plain and in the Piedmont section, for reclaiming lands, mainly cut-over lands, and there are also some swamp areas here and there.

WEST.

Mr. BYRNES. What about the Western States?

Mr. DAVIS. You mean California and the other States out there?

Mr. BYRNES. Yes.

Mr. DAVIS. There are large areas of cut-over lands in California, Oregon, and Washington. I think feasible projects of that character can be found there, but, as a rule, I do not regard the clearing of those lands as attractive for the reason that it is very expensive to clear and to level after the clearing is done. There are excellent irrigation projects in all of those States, and that, in my judgment, is the character of reclamation that should in the main be carried out in those States. I believe that the land which is subject to clearing should, as a rule, be allowed to grow up into forests until a later day when there may be more need for agriculture than there is now and after other possibilities have been developed. I think the time will come when another judgment would have to be passed on it and some of the lands cleared. The majority of the cut-over lands in those coastal States are rough and rocky and should not be cleared under any circumstances, but ought to be taken care of better than they are by cutting out the worthless stuff and thinning out where they are too thick and seeing that a more valuable forest comes up. In some cases the aspen is replacing valuable pines and firs and in other places the growth is so thick that none of it is of much value. That should be thinned out, but of course that is not our job.

SOUTH.

(See p. 890.)

Mr. BYRNES. Did you make an investigation in Texas?

Mr. DAVIS. We have looked over Texas to some extent, but we have not made any survey there. Eastern Texas has vast areas of cut-over lands, but, as I say, we have not made any detailed examinations in that State. We are examining irrigation possibilities in western and southern Texas. The opportunities in Texas, in the aggregate, are very large.

In the Gulf States, Alabama, Mississippi, and Louisiana, we find immense possibilities, both drainage and cut-over, particularly in

Louisiana. The area of swamp lands is greater there than in any other State except Florida. In speaking of Florida I meant to have referred to the large areas of prairie lands, some of which need drainage, where they are in swampy areas. These prairie lands are not of much value in their present state, although they are used to some extent for grazing. The native grasses are not very nutritious, and the conditions for other growths are not favorable. A large part of that so-called prairie land is covered with scrub palmetto. It is a little plant that lies prone on the ground and varies in length from a few inches to a few feet. It has a bunch of bayonets on the end and is almost worthless for any purpose, as far as I know, but perhaps could be used for fiber. However, it keeps the grass from growing.

Mr. MONDELL. You say that land does require drainage?

Mr. DAVIS. Most of it requires drainage but some of it will not.

Mr. MONDELL. Where it does not require drainage one would imagine the ordinary farmer could reclaim it.

Mr. DAVIS. Yes; some of it could be cleared in that way. I think this scrub palmetto only grows where it requires drainage; I think it requires a high-water table in order to thrive. This scrub palmetto can be easily cleared and leave room for the grasses, and then by introducing the nutritious grasses it can be made good pasture land in its present state without drainage, and with drainage it would be good for general agriculture. Of course, there are only certain grasses that will grow properly with a high-water table but there are some good forage grasses that do and they are starting the forage grasses.

Mr. HOWARD. In the Everglades section of Florida that you are speaking of the native grass is the saw grass.

Mr. DAVIS. Yes, sir.

Mr. HOWARD. When it gets old the cattle can not eat it; they have to eat the buds before the saws become matured.

Mr. DAVIS. Yes. One method of development that might be carried on with profit, I think, is to extensively seed to grass the uncleared lands that are either in prairie or timber. The timber, perhaps, in some cases, could be thinned; but good grasses should be put in where only poor ones now grow, and that is being done in some instances. Bermuda grass is being introduced, although that is not the best grass. However, it is said to be one of the best for getting results because it is hardy. It is an aggressive grass and drives other grasses out when it gets a good start, so they can make progress with that, and they are doing it. There are other grasses, however, that are better for forage, and where a man has taken the pains to reclaim a farm he will probably not use Bermuda grass.

We have also, to some extent, looked into projects in Arkansas. There are very large areas needing drainage in Arkansas and very large areas of cut-over lands. We have not detailed information there but our reports show that there are large areas that can be cleared and which would probably be productive.

In southeast Missouri we have what appears to be an excellent drainage project and we are now making examinations there; and in the Ozark region there are some cut-over lands that may be favorable, although they are not so promising.

In Tennessee we can find areas here and there of cut-over lands that can be obtained at reasonable figures. The same practically is

true of Kentucky, although we have not made any detailed examinations in either of those States. In Kentucky there are a number of small streams that frequently overflow their banks in very wet seasons and at all times have a high water table, so that while it is fair pasture land it is not good for agriculture. By straightening and deepening those streams this can be made first-class agricultural lands. There are several streams of that character flowing into the Mississippi and Ohio Rivers in Kentucky and such streams are also found in Tennessee. Those States have cut-over lands that may be made productive.

We have not yet found any individual project in West Virginia, but the agricultural authorities say that there are some.

Mr. HOWARD. What is your plan other than the plan suggested by the Secretary this morning?

Mr. DAVIS. The Secretary described the plan as well as it can be described, in my opinion, and I can not add anything to that.

LENGTH OF TIME TO CARRY OUT PROGRAM.

Mr. HOWARD. Taking it for granted that the committee would appropriate, say, \$100,000,000 for this purpose, what, in your judgment, will be the length of time, from the time of the procurement of the appropriation until the time you can actually get to work on these projects? How long will these men have to remain idle waiting for something to turn up, like Mr. Micawber?

Mr. DAVIS. I know we could start work on projects in a dozen States as soon as we could make up our organization.

Mr. HOWARD. That is the question. How long would it take you to make up your organization?

Mr. DAVIS. That is a question as to the character of the personnel and depends upon the abundance of men. Personally I think it will take about three months to get the work started on a large scale. Of course, we would not go into every State by any means.

Mr. MONDELL. Could you in any one case settle the question of land values, the question as to whether you were going to purchase outright or take on a basis of payment through a series of years and secure title and control in three months of any considerable area?

Mr. DAVIS. I think we could, but I was referring more to a dozen States that would be in the arid region where we have been for years making surveys, so that we could begin work quickly.

Mr. HOWARD. You could take out, under the authority granted for operation during the war, blanket condemnation proceedings, if it were necessary, on large areas of land, but the question in my mind was this, and I agree with the Secretary about it from a practical standpoint: That these lands have got to be located in different sections of the country for the purpose of inducing these young men who come out of the Army to go on to these projects, and they must be in somewhat close proximity to their homes. Therefore you would have to scatter these projects and they could not at first be on a very large scale because \$100,000,000, for 25,000 farms, would soon be absorbed. The question in Mr. Mondell's mind and the question I am trying to get some information about is the length of time it would take you to put into actual operation this scheme and give

employment on the projects to these men who will be returning from Europe. If you are going to wait a year to do it, it would be, I think, hazardous for your proposition, and I do not think it would be of much advantage to those boys because then they would have settled themselves and it would be hard to move them. It has got to be done and absorb them as they come back, so that the question in my mind is the feasibility of getting at it right away.

Mr. DAVIS. I believe we could make a beginning right away, but where we had to purchase and condemn land, of course, that would take time. As I said, we could get started on what I would call a large scale in about three months and on a still larger scale in six months. We would not have projects in all the States with \$100,000,000, but that amount would enable us to take up a good project in every State where we could find one, in my opinion, and in many cases where the projects are small we might take several. Our plan is to have these settlements in communities and not to have isolated farms. In the eastern States, where the opportunities are scattered, we might take, say, five or ten thousand acres in one area large enough to make a colony that would return the overhead expense of the Government for the instruction and supervision that it would be necessary to provide.

Mr. HOWARD. You could go into 25 States and take up 40,000 acres, under the estimate of the Secretary.

Mr. DAVIS. Yes; on an average we could do that.

Mr. HOWARD. Which would accommodate 1,000 families per project.

Mr. DAVIS. Yes.

Mr. MONDELL. I take it that the inquiry made in regard to how soon you could take up the projects referred to cut-over and swamp lands.

Mr. DAVIS. Well, this bill is not confined to cut-over and swamp lands.

Mr. MONDELL. I understand; but the inquiries up to date have been relative to cut-over and swamp lands.

Mr. DAVIS. It would not be feasible to get started as soon upon them, probably. There are some cases, though, that I have in mind where soil surveys have already been made by the Agricultural Department or some State authority, and where we could probably promptly obtain options on the land; in fact, the owners have said they would give options whenever we were in shape to take them, and have named the price and terms. We have not that in writing in any binding form in any case, because we did not feel authorized to take it. It is in writing in some cases, although not in the form of a deed or anything of that kind.

Mr. MONDELL. Is it your opinion that in a great majority of cases, as to swamp or cut-over lands, it would be necessary for the Government to buy outright?

Mr. DAVIS. That would depend upon the policy adopted, whether the Government should buy or obtain the land through a contract with the owner, and I think that the latter, perhaps, will be the one most generally used, if it is carried out.

Mr. BYRNES. What is that?

Mr. DAVIS. To enter into a contract with the owner by which he will put in the land and take his pay at the same time the Govern-

ment gets its money out. Many owners have expressed a willingness to do that, and if that can be done it will not be necessary for the United States to purchase the land, though there would be some advantage in doing that. In any case their price would be subject to the approval of the Secretary of the Interior, and he would in all cases get such advice from the soil and agricultural experts as would enable him to judge wisely in regard to the quality of the land.

Mr. MONDELL. I assume that in all cases of a development of that kind there would be some lands that would be affected by your drainage that you would not take over either by purchase or contract, but that you would bring them under your system by some sort of a contract or agreement to pay their proportion of the cost of reclamation.

Mr. DAVIS. I think that probably in all cases there would be lands of that character, except possibly in the Everglades or some of the prairie regions in Florida.

RECLAMATION AS TO ARID AND SEMIARID STATES.

Mr. MONDELL. The discussion thus far has been with regard to areas that have been examined under the appropriation for the examination of lands outside of the arid States, but the bill which is under discussion, as drawn, applies to all of the States?

Mr. DAVIS. Yes, sir.

Mr. MONDELL. And to reclamation as well as drainage?

Mr. DAVIS. Yes, sir.

Mr. MONDELL. You made some examinations under another appropriation of \$100,000 in that section. How far along did you get with those examinations, and what did they develop?

Mr. DAVIS. We have been making examinations of the same character for years under appropriations not quite as large and we have developed favorable projects in most of the western States. In the semiarid States we find it difficult to find irrigation projects that are feasible, but in the other States we have.

Mr. GILLET. You mean there is no water?

Mr. DAVIS. There are various reasons. One is the lack of storage facilities for the water that is available, but the principal reason, or at least one reason which is sufficient in itself, is that in the semiarid region the prospects for collection are not bright, as there is a good gambling chance there that men can make a crop without water.

Mr. MONDELL. In the most of the distinctively arid States you have had sufficient investigations made to enable you to take up the work quite promptly?

Mr. DAVIS. Yes, sir.

Mr. MONDELL. If there were funds available?

Mr. DAVIS. Yes, sir.

Mr. MONDELL. In addition to that, assuming that this legislation is adopted separate and apart from the reclamation law, would you take up entirely new enterprises, other than those under the reclamation law at this time?

Mr. DAVIS. I do not think it would be wise to do that. Our best opportunities in some cases would be in connection with the present reclamation projects; while there are some that do not, the majority

of the best ones do admit of it. If the two laws may be worked together in the same project we could do that. I think it should be arranged so that it might be worked together in some way. It would be of very great advantage if we could. Take, for example, in Wyoming: In case we should take up the Oregon Basin project, it is in connection with the Shoshone project. In case of the Yakima Valley high line, it is in connection with the Yakima project; and so with others.

Mr. MONDELL. Do you think there would be any serious difficulty in operating the law upon different lands providing for different conditions of payment, providing for payment of interest, alongside a law that has different provisions?

Mr. DAVIS. No; I think it could be worked. Of course it would depend upon the provisions of the law, whatever they were. I see no reason why the law as now drawn, which gives the Secretary of the Interior broad powers and does not tie him down to details, could not be worked all right.

Mr. MONDELL. Well, let us take a proposition outside the question of the bare possibility of making two laws dissimilar in character work side by side, isn't it true that in practically every arid State there is very great demand for new projects, separate and apart from the projects now under way under the reclamation law?

Mr. DAVIS. That is true, that there is a great demand for them, but it does not follow that they are feasible. There are a great many projects for which there is a demand and yet they are not feasible.

Mr. MONDELL. But that is not true in all of the arid States by any manner of means?

Mr. DAVIS. No; but that is true in some of them.

Mr. MONDELL. Assuming that you might anticipate a reasonable amount of funds from the reclamation law for the development of projects now under way, if you received additional funds under this law it would enable you to take up an entirely new project if that seemed to be the thing to do?

Mr. DAVIS. Yes, sir; in many cases. One reason, of course, why we do not know of new projects that are feasible is because our investigations have not gone far enough. We do not know it all by any means, in any State.

Mr. MONDELL. We have been discussing reclamation projects by irrigation in arid States. As a matter of fact this bill provides for drainage as well as reclamation by irrigation, in those States as well as elsewhere?

Mr. DAVIS. Yes, sir.

Mr. MONDELL. And some of the work undertaken might be drainage projects?

Mr. DAVIS. Yes, sir. There are some very good drainage projects in the West.

Mr. MONDELL. As a matter of fact, there have been submitted to the committee three estimates for drainage projects in reclamation States?

Mr. DAVIS. Yes, sir.

POLICY IN ANY GIVEN STATE.

Mr. MONDELL. What would be your policy under a law of this kind if it were adopted in a given State? Take it for drainage or irrigation, or both?

Mr. DAVIS. It would depend entirely upon local conditions. We can take up both; drainage in some cases, irrigation in others. In the State of Colorado the project that I would chose if I had my choice would be a drainage project, depending upon the feasibility of working out the human element in connection with land ownership. If we could not solve that I would take up something else. The ownerships of land there are large.

Mr. MONDELL. A drainage project in an arid region would be in connection with the drainage of lands now irrigated?

Mr. DAVIS. Yes, sir.

Mr. MONDELL. In those cases and in a great majority of other cases there would be no such thing as taking over the land ownership?

Mr. DAVIS. That is true; lands that are now being irrigated or that have been irrigated in the past.

Mr. MONDELL. Yes; either now being irrigated or that have been irrigated.

Mr. DAVIS. But to answer your question about taking over ownership, the present law, of course, does not contemplate acquiring ownership.

Mr. MONDELL. What do you mean by the present law?

Mr. DAVIS. The reclamation law.

Mr. MONDELL. I am speaking of a law that you could operate under and that is now under discussion.

Mr. DAVIS. Well, I think it would be feasible to take over ownership in some cases, or at least make arrangements with the owners such as I mentioned a while ago; make arrangements so that if the owner turns his land over to the United States——

Mr. MONDELL (interposing). That would be in case the ownership were in the hands of a man who did not want to cultivate the land himself?

Mr. DAVIS. Yes, sir.

Mr. MONDELL. But take the drainage of an irrigated area in the West where the owner is now on his land and would expect to remain there would be no transfer of ownership?

Mr. DAVIS. No; where the ownership was 160 acres or less.

Mr. MONDELL. In that case your contracts would be similar to contracts for privately owned lands under the irrigation projects?

Mr. DAVIS. Yes, sir.

Mr. MONDELL. In some cases that would also be the policy that you would follow in the humid section?

Mr. DAVIS. I presume it could be worked in some places. It depends somewhat upon the existence of proper State laws. You can seldom induce land owners, where there are hundreds of owners, to come in unanimously in any kind of reclamation work. We have found in our experience that it is necessary to have a State law by which the minority may be forced into it in order to bring them in unanimously. That is provided in the laws of nearly all the arid States. In the State of Colorado, where I speak of, this drainage project, I think that might be worked.

Mr. BYRNES. All right, Mr. Davis. Is there any one else who desires to be heard on this project?

Mr. DAVIS. A question was asked the Secretary this morning concerning the desire of the soldiers to have the provisions he has been proposing. I suggest to the committee that Mr. Blanchard has been down among the encampments where the soldiers have been landing, at Newport News and in that vicinity, and I believe you would be interested in a brief account of what he saw down there.

Mr. BYRNES. All right, Mr. Blanchard, will you please take the witness chair.

STATEMENT OF MR. C. J. BLANCHARD.

ATTITUDE OF SOLDIERS TOWARD PROPOSED LAW.

Mr. BYRNES. Mr. Blanchard, are you in position to give us any information in reference to the wishes of the returning soldiers as to the bill before us, providing for the reclamation of land and the establishment of colonies?

Mr. BLANCHARD. Last week, with the approval of the Secretary and at the request of the War Council of the Y. M. C. A., to provide a form of entertainment for the boys who are returning, I went down to the tidewater district of Virginia and under the auspices of the Y. M. C. A. officials spoke at several of the camps.

During that time I frequently spoke twice in an evening, going from one hut to another, and talking to probably 7,000 men. The talk was principally on the work of the Reclamation Service, accompanied by motion pictures and slides illustrating what the Government is doing in the way of making homes for citizens of the United States. I took occasion during these talks to explain the proposed plan of Secretary Lane for providing employment and farms for returning soldiers. That was with the view of ascertaining what we all wanted to know, whether there is any interest in this matter on the part of the soldiers. The result was very illuminating to me. Perhaps one experience may serve as an example: At Camp Stuart I met several hundred marines who had just landed; a group of earnest serious men, and very different from any type of young men I had ever talked to before. They had been made different by war, and their views were more serious. The thing that impressed me most of all was the earnestness with which they listened to the address. I asked them if they were interested. The secretary whom I had asked to make a note of their response, because I was on the stage and the room was perfectly dark, said that on this occasion 50 per cent of the men held up their hands. Then I asked them to propound questions to me, and had a rapid-fire response by way of questions for an hour and a half from those men. They asked about all points of the bill, details of the Secretary's plan, and so on. When I got through I said: "How many of you boys would go on farms? And 30 per cent of them spoke up. They then came to the stage and stated where they wanted farms, and the States to which they wanted to go, and more than 100 gave me their names and addresses. I was particularly pleased to find that the most of them wanted to go back home and have lands in their own State.

Mr. BYRNES. Did you ask them where they wanted farms, as if farms were going to be given to them?

Mr. BLANCHARD. No; It was explained to them that this was only a plan suggested by the Secretary of the Interior who wanted to know what they thought of it.

Among them were a number of western boys, the parents of some of whom I know, for we had put them on their farms through our settlement work. These boys were very much better informed than the others as to the work the Government has been doing. I was told emphatically that 30 per cent of the men I addressed there are going back to the land if they can.

Mr. BYRNES. Does he want a chance to have somebody hand him a farm?

Mr. BLANCHARD. No, sir.

Mr. BYRNES. Or to give him a chance to go to work?

Mr. BLANCHARD. He wants to go to work, and to earn a farm. That is his idea. You could not talk with those boys personally for five minutes without getting that thought. They are not asking for charity or a bounty.

Mr. BYRNES. Were they boys that had worked on farms?

Mr. BLANCHARD. The boys who expressed the greatest interest were boys who had come from farms. The most of them expressed themselves as not wanting to go back as farm laborers or tenants but as desiring a piece of land. Most of them are practical farm boys. From my personal interviews and from information I received in the camps I got the impression that there is a feeling of unrest and anxiety on the part of many of them, which at times reveals grave discontent. I came back to Washington very much disturbed on account of the situation and the mental attitude of the men who are returning from the front. I wish you gentlemen could get in closer touch with the boys I have met and hear what they say. It is not pleasant.

Mr. BYRNES. It is not what?

Mr. BLANCHARD. It is not pleasant to hear what they say. They are dissatisfied about many conditions, many of which doubtless are trifling. One fellow said, "This is the first thing we have heard that looks like appreciation of what we have done." I heard that from a man who is a major. The secretaries of the Y. M. C. A. have asked the Secretary of the Interior to send more people from our office down there with pictures to make talks. This is for the reason that a considerable percentage of the men are interested in farm topics. I have been connected with the settlement work for the Reclamation Service since 1903, and have had a lot to do with the placing of the people who are on our farms to-day. Probably I know more of them than any one man in the service, for I have visited their homes, and even yet try to keep in touch with them. By reason of this experience I think I can judge whether a fellow wants a farm or not. There is no doubt in my own mind that there are many more soldiers who want farms than we can accommodate under this bill.

Mr. MONDELL. How many of the men that you talked to made the complaint that they had not been paid?

Mr. BLANCHARD. I can not say definitely as to the number, but quite a number.

Mr. MONDELL. Did you get the impression that practically all of them are unpaid?

Mr. BLANCHARD. No; I should not be concerned so much about these complaints if assurances could be given these boys that they are to find an opportunity to get a start in life when they are discharged.

Mr. MONDELL. Those men have not been discharged?

Mr. BLANCHARD. No; they are still in the Government service. They are not discharged as I understand until they are paid.

Mr. MONDELL. Until what?

Mr. BLANCHARD. Until they are paid. But that is not a very large amount of money when they are paid. The number who are being discharged is rapidly increasing and they are offering a serious problem right now. Many are expressing a desire to go to work at once on one of these settlements.

Mr. GILLET. The pictures that you showed were of the Reclamation Service?

Mr. BLANCHARD. Yes, sir; I could not illustrate work which has not been done. It was rather pathetic, the evidence of homesickness visible when I showed pictures from sections from which some of the boys had come. There were tears in the eyes of many of the lads when they saw pictures of home scenes. Most of them are dreadfully homesick.

Gentlemen of the committee, if I may say this emphatically, the plan of establishing community cooperative soldier settlements, while at first blush appears idealistic and utopian, is entirely practical if properly directed. I should regard it as a great privilege to be permitted to round up my Government work by assisting in planting these colonies in several of the States. Similar work is being done in Australia, and in other countries. It is being done in California, in our own country. It is a proposition that stands on its own feet, and it will pay back, in furnishing employment at once for thousands of jobless men in promoting quickly a considerable increase in crops and live stock, and in developing permanent homes on the land, the plan deserves the support of the Government. I think it would be well if the subject of farm settlements might be explained by Dr. Meade, for he knows about matters in California and in Australia, having been officially connected in the management.

Mr. BYRNES. Is he here to-day?

Mr. BLANCHARD. No, sir.

Mr. BYRNES. Mr. Davis can arrange to have Dr. Meade appear before us if he will be here in time.

Mr. DAVIS. All right.

Mr. BLANCHARD. I think you gentlemen may dismiss from your minds any thought that there is no real earnest demand for this chance to acquire a farm, and take up farm life as a vocation under this plan. The moment it is explained it appeals to the farmer boy. It will make country life more attractive than country life has been made at any other time in our history. It will afford a splendid opportunity to utilize all the agencies of the Government and States in promoting for the first time in the country a carefully planned and well thought out system of community cooperative agriculture. From each one of these projects there will be sprung up through State and private agencies, many others of similar character, and it will result in promoting a much larger work than the Government can hope to do. In that way you are going to relieve this labor

situation greatly, because the other projects conducted by State and private enterprise will take care of more of the boys. I am looking at this plan as an example. With a few thousands of acres developed under it in each State there will be a stimulus for the States and private enterprises to take up similar settlements. Mr. Mondell can explain how such an enterprise stimulates others. He knows what has taken place in the West, and has seen how small Government enterprises have given great impetus to State and private enterprises which have exceeded many fold the work of the Government.

Mr. MONDELL. How far are you going to carry this development? You realize that the more fully you develop each of the units the fewer units there will be that a given amount of money can reach?

Mr. BLANCHARD. The estimated cost of individual farms range from \$4,000 to \$5,000 each. That is estimating that the land is prepared and put into its first crop of wheat or whatever the first crop is, with necessary buildings, equipment, etc., furnished. Having made first payment from savings from wages paid him during the period of construction and development. His second payment would come from the growing crop on his place, the proceeds from his dairy, pigs, chickens, etc.

Mr. MONDELL. Yes; but sooner or later you would have under a plan of this kind to determine how far you are going in the way of preparing the farm for the man who is going upon it. Of course, every man with whom one discusses a matter of this kind would prefer to have a farm and house and all ready to move in and a crop growing; unless he were a very cautious and conservative man, when he he would say, perhaps, with regard to a good deal of that development that he might be able to do it more cheaply than the Government, and that he would not want to obligate himself to pay for those things that he could do for himself. It might turn out in a given locality that there were plenty of people who were willing to take the land providing the land were put in condition where it could be cropped, and in a condition whereby buildings could be erected.

Mr. BLANCHARD. Well, he is getting paid for all of the work done in putting it there.

Mr. MONDELL. He is to get paid?

Mr. BLANCHARD. Yes; the Government is to keep him on a salary while he is working on this job.

Mr. MONDELL. Well, I do not assume you can work out any plan whereby John Jones can begin his work on and remain there all the time, doing all the various classes of work necessary to be done to get that farm ready and to build a house on it?

Mr. BYRNES. Suppose he is working on the whole project?

Mr. MONDELL. Well, when the project is complete, including house and barn and the land in crop, it means a very large investment which he eventually must pay. And it means, if you go that far, a comparatively small number of farms, and therefore a comparatively small number of opportunities; and the further you go with your development toward actually putting a man on a place all prepared for him the more your plan becomes in the nature of a—not entirely a governmental gratuity, because the man is expected to pay for it, but at least a very great privilege that he could not get in any other way.

Mr. BLANCHARD. If he is not assisted to the point where the farm is producing, how is he going to pay?

Mr. MONDELL. Up to this time in all of the reclamation projects we have assumed that if we put water on a man's land that he would level it and prepare and crop it, and put his house on it, and do all that work.

Mr. BLANCHARD. But he was not broke. He had a little money, often too little. Here is a soldier who has been working a year at \$30 a month, and is now without a cent. Under this plan he is going to work a year or two and then pay 10 per cent down on his farm.

Mr. MONDELL. These soldiers are not all broke. These soldiers were not all broke when they left?

Mr. BLANCHARD. That is true; and I am not worrying so much about this class. There are enough who are without means to warrant going ahead with this plan for them.

Mr. MONDELL. They are not all broke now. Is it the purpose only to take care of soldiers who have nothing?

Mr. BLANCHARD. No; we can not discriminate. Many of those with means doubtless will desire and be willing to put up better improvements themselves.

Mr. MONDELL. Well, then, if that is true you can not assume that the soldier has nothing?

Mr. BLANCHARD. You can readily ascertain the facts.

Mr. MONDELL. I am expressing no opinion in regard to these matters. I am just discussing them because they are the first practical things you will have to meet when you reach the proposition. It is a tremendously important question to know how far you are going to go toward making it easy, preparing the way, smoothing everything down; and in so reducing the number of opportunities.

Mr. BLANCHARD. Well, I should prefer to reduce the number of opportunities and make an absolute success of the plan than to have each community burdened with a number of failures. I think we should take the experience of other countries who have worked out similar plans and see what they have done.

Mr. MONDELL. You say rather than have each project burdened with a lot of failures. You are assuming that the more you prepare the land and the farms by erecting buildings, and putting in crops, let us say, or possibly putting on a dairy cow or two, and furnishing a team, that the more you do that the more likely you are to make it a success. That depends upon the man that gets that opportunity; and it depends equally as much on how much it has cost to do that, and how much it has cost to build that house, compared with what the man himself could build the house for as he found time to do it; how much capital account this man has got to meet at 4 per cent?

Mr. BLANCHARD. Mr. Mondell, we can take a project such as we are contemplating, and put the land in crop as a community much cheaper than the individual could do it, and do it better.

Mr. MONDELL. Oh, there is no sort of doubt about that, I think; but I was just discussing these other matters that seem to contemplate going much further than we have gone in the past?

Mr. BLANCHARD. Well, as to the furnishing of stock and everything of that kind, now, there has been a proposition that the man should be financed through the Federal Land Bank, but that he should pay for that in a shorter period of time. For such stock and equipment

as he put on the land there should be another loan, made on shorter time; that is, for the stock and equipment he wants to put on his land.

Mr. MONDELL. You do not do all that through the Federal land bank?

Mr. BLANCHARD. It is now done for the man that buys land.

Mr. MONDELL. But a man must have a piece of land worth twice as much as he borrows to get money that way. Here is a proposition to loan a man a sum without security except as the security is in the property itself, by retaining in some way the title. Now, if it is a proposition solely for the soldiers, then possibly the soldier might be excepted from the balance of the community in regard to getting a loan from a Federal land bank as you suggest. Or, if not the soldier, why not the soldier's father in case the soldier has lost his life and the father, or the mother, has suffered loss?

Mr. BYRNES. You can not do that because, under the war-risk insurance act, if a soldier has lost his life the parents are already his beneficiaries, and the Government is not under the necessity of giving them employment.

Mr. MONDELL. We are not acting under the war-risk insurance act under this law?

Mr. BLANCHARD. Of course it is going to be left to the wisdom of you gentlemen to fix just how far we can go. However, in the light of the experience of other countries which have already established successful colonies of this kind, it seems to me we are not taking many chances if we follow the plans they have adopted. They have gone to the point of making the farm a going concern before asking a man to make payments. In other words, he would have such a crop planted that from its return at harvest time he would be enabled to make the second payment. In California they are doing the thing as a wholesale proposition, in furnishing lumber and equipment, and planting a crop before they ask any payment from the farmer.

Mr. BYRNES. That is all. Mr. Davis, have you anyone else to suggest that we hear?

Mr. DAVIS. I suggest that you hear Mr. Cory for a moment or two.

Mr. BYRNES. Mr. Cory, take the witness chair.

STATEMENT OF MR. H. T. CORY, CONSULTING ENGINEER OF THE RECLAMATION SERVICE.

INVESTIGATIONS MADE.

Mr. BYRNES. Mr. Cory, will you make a statement about your investigations of sites suitable for these projects? I understand you have made some examination in certain States.

Mr. CORY. In the Atlantic and Gulf coastal plain States we have investigated different opportunities for colonies, ranging from three to five in number in each State. In those States we can secure colonies from 100,000 to 185,000 acres, and in one State up to 235,000 acres in size.

The average cost to the soldier of the land as it stands to-day would be from \$5 to \$10 per acre. All lands require some drainage and clearing and all these projects are located in the so-called coastal plain.

Mr. GILLET. In what States?

Mr. CORY. North Carolina, South Carolina, Georgia, Alabama, Florida, Mississippi, eastern Texas, Arkansas, and Louisiana. In Oklahoma we examined a project where the land ran about \$12 an acre. We could get a 100,000 acre colony there. In east Tennessee two colonies of 100,000 acres in size have been blocked out. That does not mean that we have exhausted the whole of the opportunities, but these definite projects have been examined.

In West Virginia there is a total of 2,500,000 acres of land, held in ownerships of over 10,000 acres—in several cases up to 150,000 acres. These are largely coal and oil lands, and the surface rights thereof can be gotten for from \$3 to \$5 an acre.

In Maryland we can secure about 15,000 acres, at an average cost of about \$15 an acre, within 30 miles of the capital.

In Delaware we can secure about 5,000 acres.

In Virginia we can secure on the sub coastal plain a colony of about 100,000 acres, at an average cost of \$25 an acre.

In all these cases from 90 to 98 per cent of the land in any project would be turned over for this purpose. The remaining acreage would be in small scattered tracts of 10, 30, 40, 100, and sometimes 200 acre-holdings.

In one case—in North Carolina—230,000 acres of land in a body can be turned over in whole or in part.

Mr. BYRNES. Turned over on what terms?

Mr. CORY. In partnership with the Government—the owner to put in the land, the Government to put in the development, and the money paid in by soldiers to be split on a pro rata basis.

Mr. BYRNES. Did you talk to the owners themselves as to the prices at which these lands could be obtained, or just take information from parties who were interested?

Mr. CORY. In the main I talked to the owners themselves.

Mr. BYRNES. In the main you did?

Mr. CORY. Yes, sir. The enormous acreages in a single ownership in the South was very surprising to me. I found single ownerships as large as 500,000 acres and holdings of 40,000 acres fairly common.

Mr. BYRNES. The land that you refer to you believe could be cultivated?

Mr. CORY. Yes, sir.

Mr. BYRNES. And be productive?

Mr. CORY. Yes. The soil surveys of the Government covers much of that land.

Mr. BYRNES. Of the Department of Agriculture, do you mean?

Mr. CORY. Yes, sir.

Mr. BYRNES. Does that include cut-over lands?

Mr. CORY. Yes. The clearing of the lands and drainage would be the chief forms of reclamation in these cases.

Mr. BYRNES. I believe that is all.

Now, Mr. Davis, I believe you have gone over this matter so fully that it is unnecessary for us to ask Mr. Cory any further questions, and if you have no one else present, we will hear Mr. Watson, who has come a long distance to be heard on this matter.

STATEMENT OF MR. H. D. WATSON, OF KEARNEY, NEBR.

Mr. BYRNES. Mr. Watson, I believe you have come quite a long distance to be heard, and while it is getting late, we will be glad to hear you this evening.

Mr. WATSON. I came 1,600 miles to speak to you on this subject, but shall be glad to be heard at your convenience. I can go over to New York to-night, where I have some business, and will return at such time as may suit you best.

Mr. BYRNES. We can hear you this afternoon, I think.

Mr. WATSON. All right.

I will simply state to you gentlemen that Secretary Lane sent for me over a month ago to ask my opinion on his plans, and I was so pleased with the plans and with the way he put them that I have been talking them around the country considerably, especially in the States out West—Iowa, Kansas, Nebraska, etc., because there is nothing I think quite so much of as American soil, except the man who tills it. They call me "Alfalfa Watson."

I am very much interested in seeing this thing done and seeing it done right. Many years ago I went to Nebraska with my hat, and I quit with 8,000 acres. I have been thanked by the State for \$40,000,000 of revenue, which they had when they thanked me, and they have more now. I believe that statisticians tell me that this country is \$150,000,000 richer this very day from this source because I stuck to my job. I got in debt a quarter of a million of dollars, and it took 20 years of my life, and I had to ride frequently from Kearney to Boston to keep my creditors off of me; but they had hold of the bear's tail and did not want to let go and I did not want to shirk.

Now, as to the soldier, I believe the returning soldier is going to be a great blessing or a great curse. It is going to be pretty easy to make a Bolsheviki of a discontented soldier. In the last three weeks I have talked with several young soldiers who have come to me for advice. I know of half a dozen who asked me frankly if they hadn't better go to Canada, where they could get 160 acres of land from the Canadian Government and \$2,500 in money. That land they secure and the improvements they make with the money. I have invariably told them I thought they had fought for the American flag and that they better go to work under it and enjoy it.

Mr. MONDELL. If you were going to spend a given amount of money, Mr. Watson, and of course you can only spend a given amount of money, whether it be an individual or the Government, because even governments are limited in the amount of money they can or are likely to spend on a given project; if you were going to spend a given amount of money in this kind of development work, how far do you think you would be justified in going in the preparation of farms?

Mr. WATSON. If Secretary Lane carries out his plan of putting these men to work, those that will go to work and stick, giving them to understand that they will be eligible for farms in communities as soon as they have acquired money enough by their work and thrift so that they can make the first payment, I think it will be a great success.

In New South Wales, and in England also, there is a special act by which the fellow who wants to farm is paid a living wage to go on a farm and learn how. After a certain time, when he is declared competent to go ahead with the work, he is given these privileges. Now, I am not in favor, and I heard Mr. Mondell talk awhile ago, of making this easy for anybody. When you spoke of a boy this forenoon, when Secretary Lane was talking, you appealed to me, because I remember that boy who left his home in New England, 36 miles from Mr. Gillett's home, many years ago. He does not remember me. I have been introduced to him and remember him, 25 years ago. I left my father's home with \$40 of borrowed money and walked 20 miles to save a dollar, because the fare then was 5 cents a mile. I was stuck on farming, but my father had only 10 acres. He was a good farmer, and for his valuable instruction I am devoutly grateful, for it is due to that instruction that I am what I am to-day. He made rotation of crops a study and conserved his land and used good seed and gave me instruction that has stuck to me until this day. That early training gave me my start and has made me successful.

I struck Nebraska 30 years ago. I felt sorry for those people out there because they were in bad shape. Grasshoppers were eating them up and they did not know how to farm. I said, here are a lot of old fellows that I can help. So I turned down a \$15,000 salary awaiting me in New York, which caused tears to come into my wife's eyes, because she appreciated money.

I took my coat off and carried out a theory I had had for some time and planted some alfalfa, and they commenced taking it enthusiastically. I planted it 150 feet above water so as to find out if that stuff would make that country fit to live in. I have letters in my possession from gentlemen who were teaching boys in college, saying this made them so enthusiastic that it might do more harm than good. The great secretary of agriculture of Kansas came up to see me, and he said: "If you can do what you say you can do we can redeem western Kansas, but I do not believe it." I said, "Why didn't you stay at home, then? What difference does it make whether you believe it or not? It is a fact that alfalfa will do all I claim for it." I went to Kansas and talked to 1,200 people before they had any alfalfa, and they promised me that they would grow a little the next spring. They report that they now have \$60,000,000 annually. The beauty of it is that when a fellow plows it under, destroys the crop, it is worth more than before. Our agricultural college in Nebraska, at my suggestion, asked 20 farmers who had alfalfa to plow it under and give them the result. They found they had 68 bushels of corn to the acre on an average where they had never had before over 35. I have grown 360 bushels of potatoes to the acre alongside other acres that grew only 200, both the same seed, the same cultivation, the same land, the only difference being that my land had the advantage of the alfalfa roots. And when the State of Nebraska, in 1915, asked me to come down and address a meeting on alfalfa I knew it was a boquet. I went down, never intending to talk on alfalfa. When I got up on the platform I said: "I don't see what people like you want an old farmer to talk about, but as long as I am here I won't talk on alfalfa." I said, "That is a boquet, and I will talk on boys. I want to ask, why don't you give some bonuses and induce the boys to stay on daddy's farm and raise

calves to show at the Lincoln fair, and do other things you can do to make farm life attractive?" I talked about an hour. When I got through a State senator said, "Watson, we did not send for you to hear you talk, that has been pleasant, but we wanted to get you before us that we might give you the thanks of the State for what you have done for Nebraska." I have that vote of thanks of the joint assembly on my wall——

Mr. BYRNES (interposing). How about a home on the farms?

Mr. WATSON. I do not think Secretary Lane intends to do it that way at all. I think he has the right idea. His idea, I think, is to put these men in communities and give them the advantages of community life, everything that will make farm life attractive, and teach them as they go along, so that you will have a lot of farmers out of it, and a lot of successful farmers, and a good investment for your money on top. At least, as I understand him, that is what he means, and is what I would do.

Mr. BYRNES. What has been your observation of such colonies?

Mr. WATSON. I have not known of any colonies that were conducted along the right lines. I have been studying out a colonization project for 40 years, and I tried to work on it and could not get any help. I thought one day if I could get in partnership with some New England men it would be helpful, and that probably they could be interested, and then I went to New York and dropped that. So I had a hiatus in farming for some years, but went back to it. But to answer your question directly I will make this startling statement: I have been farming for 50 years in two widely different sections of the Union. I raised tobacco in the Connecticut Valley, and I have farmed out West. I have evolved a colonization scheme that is invulnerable. Every single head of an agricultural college in this country whom I have met has indorsed it. I can take a couple of hundred men and feed them and clothe them and teach them and give them everything they need and in 10 years they will pay their debt and be worth \$25,000 each. You may think that a rank statement, and it is a little startling to the average man I will admit, but with my record of results behind me nobody who knows me will doubt my statement. I will give you, and ask that you gentlemen examine minutely, a copy of a letter I wrote to Secretary Lane, in response to his request that I submit my views in writing. He has just gotten the letter, and I want you gentlemen to read it carefully and draw your own conclusions after I am gone.

Mr. MONDELL. Will you put it into the record?

Mr. WATSON. I would rather not, but if you wish, I don't mind.

Mr. MONDELL. There is no objection to putting it into the record, is there?

Mr. WATSON. Oh no; not at all. But I would ask you, Mr. Mondell, because you are my neighbor, and because you and I have things in common in life, in that we both like boys and want to help them succeed, and both believe in the education which hard knocks gives, and because of what we have been through in our early days, and the country that we have lived in and helped to develop; I beg to ask that you will carefully and thoughtfully read this latter. And I also hope that Mr. Byrnes, and my neighbor from Massachusetts, Mr. Gillett, will do the same.

Mr. MONDELL. We will all read it.

Agreeable to your request that I write you regarding my community farm plans, I take pleasure in stating for your personal consideration as I am not yet ready for much publicity, that I want to select 125 families who want to own their own farm homes but who are without means but fitted because of their desire to till the soil and their healthy bodies and provide for all their needs—shelter, food, clothing, education, social privileges and pleasures—until their labor under the direction of their teachers has paid the debt incurred by the undertaking (these farms to be 160 acres each if not irrigated; if irrigated, 80 will be sufficient).

Each department of my community will have for its manager the most competent man I can find regardless of cost. These instructors and managers will be a farm manager, a dairy superintendent, a swine director, a shepherd, a poultry chief, and a teacher of domestic science in addition to such other teachers as may be necessary for the proper general education of the community, as I intend that nothing shall be unprovided in this community which may be necessary for the living of happy, successful, well-rounded lives.

In 10 years at the longest these people will own their farms, fully paid for, with all the improvements belonging to the community. They can then decide whether they will continue as a community with all of its advantages or each take his individual holding and go his own way. These men will sign a contract with the holding company, who will guard the rights of the Government, the State, or the capitalist who furnishes the money, that they are going into this community with the idea of learning how to farm properly—the land which they farm to be theirs when the debt is paid.

If dissatisfied and desire to leave the colony at any time, they will have no claim for further pay. What they have had pays for their labor. If they see it through, they each will have possessions worth not less than \$25,000.

I propose to make this community so satisfactory to its people and so profitable that when the object lesson, which one colony will give, is furnished that every Government (National and State) all over the world will immediately go into it, as this will discourage Bolshevism and help a man to help himself along those lines of production which are the necessities of the world. Under this plan, the laborers will get their homes without any loss of self-respect. No charity in this—they will work for what they get, but they will get it all; no capitalist or middleman will prosper from the sweat of their brows. Capitalists will learn that they can loan their money with perfect security to both principal and interest to such communities, and last, but by no means least, this community will teach the world how to save instead of wasting the soil fertility which must be carefully husbanded from now on, if we are not to leave a heritage to the coming generations which would be discreditable to our common sense.

When I went to Nebraska 30 years ago, the average yield of wheat per acre was 15 bushels—now it is not quite 10. On Watson's ranch, the yield has averaged over 28 bushels from the beginning. Each acre of that farm has increased the yield of crops each year over its preceding years. American farmers know but little about how to properly farm their land. They have grown rich while wearing out their farms because of the demand for their land caused by the increase in population.

Relative to the wasting of soil fertility: You know how it is in New England and the South, but you may not know that Ohio, the Garden State, at one time of this whole country—because of its abounding fertility—in one year lately spent \$4,000,000 for commercial fertilizers. Suppose that had been saved so that the money could have been spent for beneficent things like old ladies' homes, orphan asylums, schools of research of education for cripples and other important matters.

I am now traveling about the country trying to create a public desire for what I wish to do. I have thus far called on several of the leaders of agricultural thought and have not yet found a pessimist. I quote from Dr. Bailey, of Cornell, as follows:

"As I followed your explanation, three or four main considerations seemed to stand out clearly: (1) To save the fertility of the land for us and for the future; (2) to assist the poor man who has in him the making of a good farmer to find and own a farm; (3) to demonstrate to persons of means that there are ways in which capital can be put into agriculture with expectation of its earning interest and with assurance that commendable educational and social results may be forthcoming; (4) to give an example of a colonizing plan that does not want to make money for a promoter. I am in sympathy with all these purposes, and shall be glad to be of aid to you in their promotion."

Here is an extract from the letter of Dr. Thompson:

"After some consideration of your proposal as outlined to me in two interviews, I beg to say that my judgment is that a practicable method of giving reliable men without capital suited to farm life an opportunity to purchase and own their own estates is a matter of first and vital importance to the country."

To which Dr. Butterfield, whom I caught in New York on the morning of his departure for France, has given his indorsement as follows:

"I am glad to subscribe heartily to Dr. Thompson's letter on this sheet."

Dr. Pearson, of Ames, Iowa, writes as follows:

"Mr. Watson's desire to help worthy and competent people to acquire ownership of farms on an entirely self-supporting plan and at the same time to advance the best methods of agriculture, including competition and cooperation, is worthy of the most careful consideration. This question is one of the most important of the many questions before the American people. It is already receiving attention in other countries, especially in England."

Dr. Davenport, of Champaign, Ill., says:

"This must appeal to every man who knows the actual conditions that are developing as regards land ownership and the desire for lands that has not abated with the passing of pioneer conditions."

Dr. H. J. Waters, of Kansas, says:

"I am greatly interested in your colonization plan, which from your statement is wholly unselfish and appears to me to be entirely practicable."

"If this plan is carried out properly, it will make the way easy for the young man of intelligence and industry, but without means, to acquire a farm home without wearing out the soil in the process of earning it. This would be true not alone in such cooperative enterprises as you seek to establish, but everywhere, for it would open the way to attaining this end through Government and State assistance."

"Such a plan as you propose would also show the farmers how they may cooperate successfully in the conduct of their business affairs and in developing the right sort of community life in the country."

"I wish you the fullest measure of success in your undertaking and shall be glad to help you in any way in my power."

By the way this community of mine could use some soldier-cripples who desire to work along agricultural lines. We don't need men with legs to milk cows, can pork and beans or run tractors.

I do not want to die before I have got this useful way of caring for men and the soil they try to own into the minds of the great ones of the earth who can develop the idea. Here is the prospect financially:

EXPENSES.

I put expenses first, as the first question I am asked is "What will it cost."

I want \$2 000 000.

The interest on this at 4½ per cent will be, a year.....	\$90,000
Taxes and insurance (if I can not get the State receiving first colony to abate taxes, probably).....	10,000
Food clothing, etc., for 125 families at \$800 a family.....	100,000
Teachers and other expenses.....	50,000
Total.....	250,000

This is too liberal by at least \$25,000—probably \$50,000. My farming experience of 50 years, employing on Watson's ranch sometimes 150 men, enables me to know but I want to make the expense sheet big enough to have the best of the critics.

RECEIPTS.

Receipts 1,250 milch cows will be (no cow used that does not furnish 10 000 pounds of 3 per cent milk or 350 pounds of butter). \$200 a cow, allowing a fair price for the value of the calf and by-products.....	\$50,000
1,250 sows—6 pigs a year—the average on Watson's ranch was 7 pigs a litter—7 500 hogs. These hogs to be turned off at 300 pounds at 8 cents—one-half the present price (although I do not expect to see pork average hereafter less than 10 cents—7 500 hogs at \$24.....	180,000
6,250 sheep should, in wool and lambs—wool at 25 cents a pound and lambs at 10 cents a pound—one-half the present price.....	50,000
Hens on 125 farms.....	100,000
Total.....	580,000

Prof. Warren, of Cornell, took in this year for eggs off two farms over \$10,000. As to other revenues, I intend to put 10,000 acres of this farm into alfalfa that I may at once begin to acquire increased fertility. There will be 3,000 acres in corn which I want for my live stock.

I will put 3,000 acres into beans; get 30,000 bushels, which will be canned in the winter with pork of our own raising. These beans so used will be worth not less than.....	\$100,000
I will put 2,000 acres in potatoes, which will bring me, at \$50 an acre.....	100,000

I expect to get twice that, and if you will ask L. D. Sweet, of the Food Conservation Department, the authority on spuds in this country, he will tell you I should expect to get at least twice the amount stated.

There are 5,000 acres left. I will not weary you by telling you what I could do with these acres, except that I will take more revenue off them than \$20 an acre, which means another..... \$100, 000

880, 000

Here we have a total of \$880,000 which I am sure of each year (after I have gotten well under way, which will be in two years), with which to pay \$250,000 a year. The receipts will be more than above stated, as every family with children will have a rabbitry. There will be asparagus, rhubarb, berries, and ultimately fruit trees of various kinds, which will furnish large revenues.

Were it not for my long, successful experience on Watson's Ranch, I might not be so obsessed with my plans, especially as I intend to serve the colony as long as may be necessary without compensation.

With warm personal regards,

Yours to command,

H. D. WATSON.

N. B.—A little item for you, with your humanitarian ideas and helpful idealistic thoughts, may interest you. I propose to build onto my creamery a small laundry. I shall only need a little lumber, as it will be a small building and the creamery itself will furnish one side of it. This creamery always will have surplus steam and power. Every Sunday night a colonist will go with a motor and pick up the weekly wash from each farm, carrying it back Tuesday evening, thus saving the women's backs, as I propose to make the colony attractive to the women.

I notice on re-reading what I have dictated that the stenographer has omitted that part of the dictation in which I say that each man's allotment will be 10 cows, 10 sows, 50 sheep, and 250 hens. You will notice that 125 multiplied by 10 makes 1,250 cows and sows on which I was figuring and that 50 sheep multiplied by the number of families makes 6,250.

H. D. W.

Mr. MONDELL. You have not said yet just how far you would go if you had control of this situation in preparing a place for men to make a start.

Mr. WATSON. One man?

Mr. MONDELL. Or a community.

Mr. WATSON. I will tell you what I would do: I would spend this money—I would spend even more money. If I were a farmer and had 20 acres of land on my farm that could be reclaimed, if I did not borrow the money at a local bank and reclaim it I would be very foolish, if there was a profit in it. This Government is good for the money, and these boys have fought to protect their country and should be provided for; and, outside of all that, as a business proposition, I know what you and I would do if we had the money, for I can tell that by looking at you and the questions you have asked the different witnesses who have appeared here during my presence. We would not let land lie there idle; we would reclaim it and put it to use.

Mr. MONDELL. That is all very true; but, of course, Mr. Watson, this is an intensely practical question and must be approached from that standpoint. When we go into an enterprise of that kind we must know what we are going to do, what we can do with what money we have to spend on it; we must know that at the start. We must know whether we are going to make opportunities available so far as preparing the land is concerned, or whether we shall go a step further; and if so, how much further, in providing buildings and improvements and so on.

Mr. WATSON. If you will read this letter you will get my ideas.

Mr. MONDELL. Very well.

FRIDAY, JANUARY 31, 1919.

STATEMENT OF DR. E. MEAD, CHAIRMAN OF THE STATE LAND SETTLEMENT BOARD OF CALIFORNIA.**RECLAMATION OF SWAMP LANDS, ARID LANDS—ESTABLISHING OF SOLDIER COLONIES.**

(See pp. 841, 876, 956.)

Mr. BYRNES. We have under the Interior Department, the Reclamation Service, an estimate of \$1,000,000 for further surveys with a view to establishing drainage projects, and also have pending a bill in that connection introduced by myself—No. 13865, as I remember.

You have had some experience, I know, Doctor, in reclamation work, and we would be glad if you would make a statement to the committee of your experience and your opinion as to the advisability of pursuing this work at this time.

Mr. MONDELL. If I may suggest, will you please give your experience in connection with reclamation work very briefly, Doctor, so that those who read your statement may know.

Dr. MEAD. I have had over 30 years administrative connection with the development of rural communities. During the last 12 years I have been directly connected with the planning, settlement, and development of communities with Government funds. Before that time I was connected with the development of the arid West under irrigation, at first as assistant State engineer of Colorado, then for 10 years as State engineer of Wyoming, and later for 10 years as chief of irrigation and drainage investigations of the United States Department of Agriculture.

In 1907 I was offered the position of chairman of the State rivers commission of the State of Victoria, Australia, and went there to what was supposed to be an engineering position. The State of Victoria, which has most of the irrigated land in Australia, had expended something like \$20,000,000 in building irrigation works. Many of those had been in operation for over 20 years, and they had been unprofitable. The purpose of the creation of the commission of which I was chairman was to find out what was wrong and to make them pay. It was apparent that the trouble was with the agriculture rather than with the engineering—that was admirable, but the land was held in large areas and was farmed carelessly. Irrigation required that there should be ten times the people that lived on the land and that they should farm it intensively. It needed the breaking up of the large estates and a change in the kind of agriculture. To do that it was necessary to take settlers with small capital.

A man with ample money would not undertake to make a change in his methods of life or the kind of farming with which he was familiar. It meant also that settlers would have to be sought abroad. Australia is a country with great areas of unoccupied land. Men of ample capital preferred to follow stock raising or a combination of farming and stock raising, in which there would be much land and little cultivation. They did not care to take a small farm and put

a large amount of money in it for development and cultivation. If settlers were to be sought abroad, it meant that the State must take people with small capital. We therefore came up against this question, If we were to sell land to settlers with little money, how were we to make it possible for industrious settlers to pay back that money? It was the purpose of the Government that this should be a solvent undertaking; that the irrigation works should pay 4 per cent interest on the cost, in addition to operating expenses; and that anything that was advanced in buying land or improving farms should be repaid with interest at 4½ and 5 per cent. It was evident that this could not be done by putting settlers on the land and leaving them to struggle along without aid or direction. The time of development would be too long and opportunity too meager.

We had to consider, first, how much money it was going to take to improve and equip a farm of, say, 40 to 80 acres. Then how much of that money the settler should provide, so that there would be some salvage if he should prove a human failure, and to prove that he was a man with real earnestness of purpose. The other problem was how much the State could afford to put into the improvement and equipment of a single farm and what it could safely and wisely do to insure the success of the settler. A good many men familiar with agriculture were asked to estimate the minimum cost of improving and equipping the kind of a farm the Government proposed to create. The agreement finally reached was that in order to bring those farms into full cultivation within two years—and we felt it must be done within that time or interest on the investment would operate against success—there must be available for improvement and equipment \$3,750. That was the minimum. There was no reason to expect that many settlers would have that sum. The question was how much we must require those accepted to have and how much the State could safely put in it. The conclusion was that the settler must have one-third and the State would put in two-thirds of the improvement cost in addition to the land. That was a more novel proposal to a young country with a large area of unsettled public land than the idea of soldier settlement is here.

Preliminary to embarking on this State-aided settlement plan in a large way the minister of lands and myself went to Europe to study the methods and results of such settlement there. We spent nearly a year studying what had been done in Europe and the conditions which had led European countries to do anything. We found that agricultural sections of central Italy had been almost depopulated because the people had become tired of being tenants under feudal conditions and had emigrated in large numbers to Argentina and to the industrial cities of the United States. To meet that situation and to repeople these abandoned estates with people who were farm owners the Government had bought the land and brought in settlers from northern Italy.

MR. MONDELL. Was that in the valley of the Po?

DR. MEAD. No; farther south, but the settlers came largely from the valley of the Po. The Government sold them farms on 50 years' time and arranged for credits which would enable them to make improvements.

From there we went to Ireland, where the Government had spent nearly \$500,000,000 buying out landlords, subdividing the land, and

turning it over to the former tenants. We found some 9,000,000 acres of land had been changed from a tenant agriculture into an agriculture of owners. The transformation has been marvelous both in agriculture and the character of the people. As tenants they were dissipated, lawless, and turbulent. As men struggling to become owners they are industrious, sober, and law abiding. When we were there in 1910 out of a total of over \$450,000,000 advanced by the Government to help those poor people that had started almost without capital were in arrears less than \$2,500. Mr. MacKenzie, the Australian minister of lands, was a Scotchman and the governor of Victoria was a Scotchman, and we carried letters to many leading agriculturalists of Scotland and were in conferences in Edinburgh, Glasgow, Aberdeen, and other places with the leaders of agriculture in Scotland. They said it had been determined that what had been done in Ireland must be done in Scotland, that their rural districts were being drained of working people who were going to Australia and Canada. The law passed to improve agriculture and rural life in Ireland was in 1911 enacted for Scotland. It is working as successfully in keeping the Scotch people at home and to improve agriculture as it did in Ireland.

We went to Denmark. Denmark after the loss of Schleswig-Holstein was in a bad way. A great deal of the country left was sand dunes. The people were discontented and going away to other countries where there was cheap land. The nation had to do something to change that situation. They began with 7,000 acres of church lands which the Government bought, cut up into small farms, and sold to settlers on long-time payments—that is, from 50 to 70 years. The interest rate was low, $3\frac{1}{2}$ per cent in some cases, and the settler was only required to have a capital equal to one-tenth of the cost of the completed farm. That meant the land, barn, house, stock, and everything on it. That was the salvage for the Government.

Mr. GILLET. What do you mean by one-tenth, that he must have capital enough to pay one-tenth of the cost?

Dr. MEAD. Yes, sir; one-tenth of the whole cost. If a man had little money, he took a small area. A large percentage of the farms are less than 10 acres. Everybody knows what has happened to Denmark since that time. It has become the teacher of the rest of the world in cooperative agriculture. This was aided by the fact that the Government made community settlements; that is, there must be a certain number of people together so that they could be organized and looked after as a community.

I had previously gone to Germany and knew what Germany was doing before going to Australia.

Mr. MONDELL. When was that?

Dr. MEAD. This was in 1903. Germany had begun the closer settlement of large estates in the Polish provinces as a political measure, but that had extended until State land settlement was going on all over Germany. The Imperial Government operating with local authorities in the period between 1906 and 1914 spent over \$400,000,000; that is, the Imperial Government furnished over \$400,000,000 to finance the purchase of small farms under a cooperative arrangement with the local districts.

In 1915 I wrote to Mr. Gerard, our minister to Germany, for all the information he could gather as to what Germany's plans were for carrying out Government-aided settlement after the war. We supposed then that the war would be over in a short time. The official documents sent us showed that they were perfecting plans for the continuation of these operations on a large scale in Poland after the war was over, and the statement was made in one report that what had been done to foster land ownership by former tenants prior to the war had done more than anything else to enable them to meet the economic situation which confronted them when their food supply from the rest of the world was cut off.

The minister of lands went back to Australia thoroughly satisfied that Government aid in land settlement was a solvent undertaking.

Mr. GILLETT. What year was that?

Dr. MEAD. 1910. In the years from 1910 to 1914 the State bought many private estates and created 10 large closely settled communities. Within five years the rural population and value of the products had so increased as to make the indirect benefits of great importance.

In time two big milling concerns had those houses cut out and material for a complete house could be ordered just as you would go and order a machine. There were people that made a business of contracting with the Government for settler houses. We let the settler contract to build his own house if he wanted to, but they were all on the same condition, that they were to pay a certain percentage of the cost, 40 per cent of the house.

Mr. GILLETT. Was that in addition to the initial \$1,200?

Dr. MEAD. It came out of that. There is no question but this action saved to those settlers 50 per cent of the cost of the house, in addition to valuable time, and it came in time that, no matter how much money a settler had, he let the State build his house.

This was an irrigated country. The preparation of fields for the proper application of water in irrigation is an engineering rather than an agricultural operation and requires an equipment that the settler would not have; that he would not know anything about. Like building houses, that is something the State could do more economically than the individual settler. Then, if it was alfalfa land, we seeded it. We have had people come from Europe and be earning a living and their expenses within a short time after they arrived. We could have their houses put up for them in six weeks, and we already had the alfalfa growing. We also helped them with the live stock, as we found that in bringing a large number of people into a strange country the older settlers were taking them down. Just one illustration. The price of cows in England was £25 to £30, but in Australia from £7 to £9. A good English farmer coming there and seeing a good cow offered for £25, and of course it was a sale. Beginners had to be protected from sharp practices, so that they got really a fair start. The settler was held to rigid compliance with his contract. He was made to feel from the beginning that the Government had gone as far as it could go and would insist on his living up to his contract with it. We had an accounting with them every three months the first year and, if they were all right, once a year afterwards, largely as a statistical matter, to let them know where they

stood and to show that this thing was looked after from the business end.

I had over 20 years' experience in America with the building up of new communities before going to Australia. The more I saw of planned development the more I wanted to come back and help introduce it in this country, and when I was offered the position as chairman of the commission on colonization in California I accepted.

Mr. MONDELL. If it will not interrupt the form of your statement, I should like to ask if you have kept track of the development in Australia since you left?

Dr. MEAD. Yes, sir.

Mr. MONDELL. Has the land been kept up in good shape?

Dr. MEAD. Yes, sir. I have a report here which can be submitted if you so desire, from the Minister of Lands in South Wales, and I have also a letter from the man who succeeded me.

Mr. GILLETT. Is there not some history of this enterprise in book form?

Dr. MEAD. Not consecutively, but it could be made consecutive.

I came back and became chairman of the commission that investigated conditions in California, that is, what had been done under private colonization, and whether anything was needed to give better opportunities to men of small capital. That commission made a report that there be carried out in California an experiment or demonstration of the kind of rural development that had been carried out in Australia. The legislature appropriated \$260,000, just what could be spared out of the current revenues. The governor appointed what would be called a conservative board. One of the members, Mr. Fleishhoecker, is the president of the Anglo-California Trust Co.; another, ex-Senator Frank Flint, is a lawyer and banker; another, Mr. Coggsell, is a banker in southern California; and also a farmer, Mr. Langdon, is a judge, and myself. I do not mean conservative in any disagreeable sense, but business men who look at the dollars and cents side of the undertaking. We had to buy the land on time because the \$260,000 would be needed for improvement, equipment, and to get the land into condition. We called for land on those conditions and we had some 40 tracts offered us, and bought part of the endowment land of Stanford University. We paid 10 per cent down and are to pay the remainder in amortized payments extending over 20 years.

Mr. GILLETT. You had authority to pledge the credit of the State for the other 90 per cent?

Dr. MEAD. Is there any pledging of the credit of the State? That was a legal question which I think has been definitely settled in the negative. We had authority legally to buy the land on time payments. We made the purchase contract in January, but it was June before the settler could go on the land.

Mr. GILLETT. This is irrigated land?

Dr. MEAD. It is irrigable land, and we are to build the irrigation works. We let a contract in January for the plowing, seeding, and preparation for irrigation of a large part of the land, as much as could be planted between the time we bargained for the land when the settlers were allotted farms in June. They were to have the crops on condition that they pay the cost of planting. In that way they get farms with crops on them. They could go to work harvesting some crops and planting others.

Mr. GILLETT. Did you put up the buildings?

Dr. MEAD. Not in advance of settlement. What we did was this: We had an architect at headquarters to advise with settlers about plans for their houses and to help them select plans suited to the climate and their available cash. When an agreement about the house was reached the building was erected under the board's direction.

Mr. GILLETT. At their expense?

Dr. MEAD. Yes, sir; except that where a settler lacked capital; even in such cases we have insisted on his furnishing all the money he could spare. We have not furnished a dollar until his money was spent. After that we would have furnished money for what seemed to be necessities. We could do that under the State law up to \$3,000 on a farm. Some of those settlers made out of that first crop we put in for them as high as \$1,400, and all of them made something. I mean they made that over and above expenses.

Mr. GILLETT. What year was this?

Dr. MEAD. Last year. Those that had alfalfa got three crops after June.

Mr. GILLETT. Did they all succeed? Suppose a man failed, what would you do?

Dr. MEAD. If a settler on the farm should fail the land is worth 50 per cent more than when he got it. There are settlers waiting to take any farm surrendered.

Mr. GILLETT. Outsiders?

Dr. MEAD. Yes, sir. To illustrate: One man died of influenza a few weeks ago—

Mr. GILLETT (interposing). Would he have to sacrifice what he had put in?

Dr. MEAD. No, sir; not if somebody would pay enough to reimburse him. There are three soldiers applying for the farm of the settler who died.

Mr. GILLETT. How much capital is required there?

Dr. MEAD. \$1,500. I do not feel that the average settler could succeed with less there. We do not feel that a settler with no capital, with no margin against contingencies, should be encouraged. That was our experience in Australia. The chances of failure and discouragement are against it. In established settlements there is not much difficulty in finding some one to take a farm and let the first settler out without loss if he has to retire.

Summarizing results in California: We have inside of a year put settlers further along than they would be in three years working without aid. They have met their payments and are in shape to continue doing this.

Now, that was undertaken before we were in the war. It was done as the best means of providing organized rural communities, and it had nothing to do with the soldiers. But the soldiers from California know of the act and the chances it gives men of small means. These soldiers are writing to the governor and the land-settlement board to know what is to be done to provide farms in the future.

One of the censors of soldiers' letters recently told me nearly half of the letters had two ideas—to get back and marry the girl, and to get a farm under the California land-settlement act. The New York Herald published an account of what California was doing some time in December, and within 30 days we had over 500 letters from

soldiers in France asking what the opportunity was and just what the State was going to do.

In buying the land, its value was usually fixed by three men having no connection with the Government or with the owner, but who had a knowledge of agricultural and land values. These men determined the value of the land by taking the net income for a period of years and estimating it as representing 5 per cent interest on the cost. Land was therefore bought on its productive value. After the land had been subdivided it was offered to settlers under the following general conditions:

Applicants, male and female, must be over the age of 18 years.

The maximum value of land which may be held by one lessee is \$12,000, except in the case of an allotment where a valuable home-
stead is erected, when the value of the land may be increased to \$19,200.

Agricultural laborers were allowed allotments having a value up to \$1,680.

Allotments are sold under a conditional purchase lease having a term of $31\frac{1}{2}$ years. Applicants are required to make a cash payment equal to 3 per cent of the value of the land, together with \$6 lease and registration fees. In the event of an application being unsuccessful, all money paid, less the registration fee of \$1.20, is returned. Residence upon the allotment, or upon the estate of which the allotment forms a part, or upon land adjoining the estate and not separated from it by more than a road or watercourse, is compulsory for eight months in each year, in the case of a farm holding. In the cases of agricultural laborers' and workmen's allotments, residence for eight months in each year is also compulsory, and each settler by himself or his family must reside on his own allotment.

Upon a farm allotment it is a condition that permanent and substantial improvements to an amount equivalent to 6 per cent of the value of the land shall be effected before the end of the first year. Before the end of the third year the value of the improvements must be increased to 10 per cent, and by the end of the sixth year to a total value of 20 per cent.

Upon an agricultural laborer's allotment a substantial dwelling to the value of at least \$144 must be erected by the end of the first year and the boundaries of the allotment must be securely fenced by the end of the second year.

The closer-settlement acts provide that where through unforeseen circumstance settlers can not meet installments punctually they may obtain temporary suspension thereof up to 60 per cent of the security value of the permanent and substantial improvements effected by them, or an advance up to the same amount, provided the installments are paid to date, may be obtained for a fixed period in order to enable them to continue working and further improve their allotments. All advances or suspensions carry an interest charge of 5 per cent per annum upon the amount suspended or advanced. In cases where the amount of arrears exceeds the security value of the improvements, the settler is required to give a lien on his crop or a stock mortgage as further security until the arrears are extinguished or reduced to within the security value of the improvements. The maximum advance or suspension which may be made to a settler on a farm allotment on account of improvements effected within the

first six years of his lease is \$2,400. If the lease has been in existence over six years, and the certificates of compliance with the conditions of the lease have been obtained, the board may increase the advance by an amount up to 60 per cent of the principal which has been repaid, the total advance not to exceed \$4,000.

PREPARATION OF LAND FOR IRRIGATION.

The State rendered the following assistance to settlers in the grading of land:

1. It rents settlers grading tools at the nominal charge of 60 cents a day, thus saving the settler a large expenditure in these implements.
2. It furnishes at a nominal cost contour plans showing the direction of the slopes, thus enabling the settler to tell how his land should be graded.
3. It grades a part of the entire farm in advance of settlement and adds the cost of this to the price of the land.

The settler therefore has the option of either doing his own work or taking a block where a part of the work has already been done.

Closer settlement in Victoria.—Under this act up to 1914 there had been purchased in Victoria 567,687 acres of land, the purchase price being about \$37 an acre. About 15 per cent of the purchase price was necessary to cover expenses of supervision and settlement. The average price to settlers of the closer-settlement lands has been about \$45 an acre. The land so bought has been disposed of as follows: 500,819 acres in farm allotments and 8,829 acres as agricultural-laborers' allotments.

In the five years from 1909 to 1914, when the war began, the six Australian States had loaned to settlers to make improvements and buy equipment, under conditions similar to those of the State of Victoria, the large sum of \$68,290,500. The farmers were meeting the payments on both principal and interest.

The minister of lands of New South Wales, the largest of the Australian States, made on July 17, 1918, the following statement:

Seventy-eight per cent of the settlers on the closer-settlement areas were fully paid up, and that was an indication that they were satisfactorily established on the land. Sixteen per cent had to have their periods of payment postponed, and 6 per cent were not in a satisfactory condition. This might be due to privations, but the general results indicated that a high class of settlers had been secured.

In 1914, the year the war began, the premier of the State of Victoria made the following summary of the results of five years' operations of the closer-settlement act under the conditions above outlined:

The final success of this investment depends on the returns which can be obtained, and in this respect the State stands in an entirely different position from that occupied five years ago, when it made intense culture, combined with closer settlement, the basis of future development. Then it was an experiment, the success of which was doubted by many; now it is a demonstrated success. Over large areas in widely separated districts more than 10 times as many families are settled comfortably, under attractive social conditions, as were there five years ago, and they are obtaining returns from their holdings that even less than five years ago were regarded as impossible. The demonstration that families can be fully employed and obtain a comfortable living on from 20 to 40 acres of irrigable land not only insures the financial success of our investment in irrigation works but gives a new conception of the ultimate population which this State will support and the agricultural wealth which it will produce.

In a report of the minister of lands of that State, made within the last 18 months, he stated that a majority of the settlers had very small capital, averaging the first five years less than \$1,500, yet only about 15 per cent had been unable to meet their obligations. "This," he stated, "was a smaller percentage of failure than he had been able to discover in the history of land settlement in any other country."

The success of settlers and the excellent financial results were due to the following features:

Recognition of the fact that a settler must not be accepted with a small capital unless the State was prepared to advance enough money to supplement his capital to enable the farm to be brought into full cultivation within two years, so that the settler could be making all of his investment revenue producing in that time.

The next was that in every settlement care was taken to secure as superintendent a man with a knowledge of agriculture in that locality and of first-class business experience and ability. This superintendent of the settlement is the most important factor in the success of the scheme. The system places his ability at the service of settlers of small capacity. Furthermore, this kind of organized development will not be a solvent undertaking unless there is close financial oversight over settlers' operations for the first three or four years. They must be made to realize that they will be held to the same accountability to meet their payments that they would if a bank instead of a government were carrying out the undertaking, and that, while the system would be flexible in case of illness and undeserved failure, there would be prompt and effective action to eliminate the idle, extravagant, and shiftless. Elimination of the unfit is as important as aid to the deserving. One or two idle men in a settlement will demoralize the whole community.

The chances for success of the individual settler are made far greater than in an unorganized, individualistic development by these things; that is, development was planned as a community undertaking, just as industrial undertakings are to-day planned. Those in charge tried to think out how the things essential to the success of the community could be most quickly and cheaply done. The aim was to have the settler do everything possible, but where something could be done for the community as a whole better than the settler could do it for himself then that was taken to be the task of the Government. There are two or three things that should be made Government undertakings under the proposed soldier settlement of this country.

One is the building of houses. Suppose a soldier settlement of 40,000 acres is to be created. As soon as the land is bought interest on the purchase price begins to run. The sooner the settler is in a position to pay that interest the better will be the ultimate financial result. If such an estate is divided into 80-acre farms, it means that there will be 500 settlers. If each of these is left to do alone the things needed to make the farm habitable and productive, there will be 500 families living under hard conditions on the farm or at great expense by boarding in town, while the settler would be looking for carpenters, plumbers, and furniture, and the various things needed to secure a habitation for his family. Many of these settlers would not know local prices or people. They would be acting under conditions which compelled them to buy quickly, and hence at a disad-

vantage. The result would be that all houses would be built at an excessive cost, that necessary farming operations would be delayed, and many of the houses would be unsightly, mere excuses for habitation, and a source of discontent and dissatisfaction to the whole community. If, instead of that, the building of houses is made a part of the work of the Government, general plans of low-priced houses to meet the conditions of settlers are made, and two or three competent foremen to supervise their construction; these two or three men can do the work of 500 and do it better, the material can be bought at wholesale for cash at a great saving in cost, and, what is more important, a great saving of time in the completion of the house and in leaving the settler free to do the work he understands, which is the preparation of his land and the planting of crops.

Now, if there had been no war, there is no question but what there would have been an expansion of State-aided settlement. We are only doing what Australia has done, what Denmark has done, and what England is doing.

Mr. MONDELL. In view of your long experience in the United States and your wide knowledge of drainage and irrigation, and in view of your knowledge of what was done in Germany, in Italy, in Ireland, and Scotland, and in view of your practical experience in Australia and in California, what is it, in your opinion, that we ought to do and might do through the Federal Government? How should we undertake that work, and how far do you think we should go in this matter?

Dr. MEAD. I will first finish what I was going to say about California's recent action. At the instigation of the governor two bills have been introduced in the legislature, one appropriating \$1,000,000 in money and the other providing \$10,000,000 in bonds. These measures have already been reported favorably by the appropriations committee. That is what California will do within the next two years.

Mr. GILLET. You spoke of organizing communities. Have you explained what you mean by organizing communities?

Dr. MEAD. When we began to provide opportunities for settlers in Australia this argument was used: Help individuals buy farms wherever they want to live. We started doing that. Two or three people would buy a farm formerly owned by one person. That plan was a complete failure, and the trouble was this: The farm buyer had to pay for the farm in addition to making a living. Around him were people owning farms and living in a generous way; the man who had a farm to pay for would have to work harder, wear poorer clothes, and be more economical than his neighbors, and he would not do it. We found that a large percentage of these isolated settlers were not meeting their payments, and if we sent a man to see them we would have to pay his railroad fare to and fro as well as his salary, and oftentimes when he got there he could not do anything, and if the farm was surrendered it was hard to sell. To make a long story short, we had to abandon that plan. We had to have a certain number of people together, with a superintendent who would look after the settlement to see that the farming was done right, to help the inexperienced, and speed up the slackers. It is the conclusion of the commission that has investigated individual settlements and community settlements in England and it is the conclu-

sion in Australia that there must be at least 100 people in a settlement to make the thing solvent. Then the Government can afford to hire a man to look after it without the overhead becoming too burdensome.

Mr. MONDELL. In other words, you must do your development work with considerable areas where you would control all of the land on which you would establish these communities?

Dr. MEAD. Yes, sir; and that makes it possible to create cooperative organizations. We could not have bought material to any advantage if we had bought only one farm here and there, but in buying for 100 or 150 settlers, as we have been buying in California, we are able to get wholesale rates, and even better rates than that.

Mr. GILLETT. Do you mean cooperative buying of clothing and family supplies?

Dr. MEAD. No, sir; houses.

Mr. BYRNES. And farming tools, also.

Dr. MEAD. Yes, sir. In connection with the purchase of cows and other live stock we have the assistance of the professor of animal husbandry of the university, who is an unusually competent man. Then, we are arranging with the settlers for the selling of their milk. That is something that they could not do as an individual proposition.

Mr. GILLETT. You do not charge that as a part of the overhead, do you?

Dr. MEAD. Yes. We bought the land for \$545,000 and we sold it for \$745,000, or for \$200,000 more than we paid for it. Now, that difference is intended to pay the salaries for all of those services—to build certain irrigation works, to provide for road construction, and things of that sort. It is a solvent undertaking, and we have to repay the entire sum provided by the State, with 4 per cent interest, in 50 years. Our appropriation has jumped from \$250,000 to \$11,000,000 in California, largely because repayment of the first appropriation seems assured. During the last six months I have been giving a part of my time to the Interior Department, at the request of Secretary Lane. I have been looking at the country in the east, and I believe that even if we did not have the soldier problem, that Government aid and direction in land settlement should be the general policy of this country. I say that because this is intrinsically sound from the business standpoint.

Mr. GILLETT. Do you mean that it will be done by each State?

Dr. MEAD. In cooperation with the Federal Government. I think that each State will go into it in time. I went to Massachusetts and while there I saw within 50 miles of Boston an area of 60,000 acres of land that is to-day of practically no value from the productive standpoint, and yet it is capable of being made a valuable agricultural district. An individual has bought some 14,000 acres of that land, intending to develop it very much along the line on which it would be developed by the Government. They have adequate capital and use tractors and other machinery, so that they cut the expense of getting the land ready for cultivation down to one-third of what it would be if an individual did the work without the proper equipment. A community established there could get things and do things that an individual could not do. That particular section has great possibilities for dairying. Boston is getting a large part of its milk sup-

ply from Canada and the prices obtaining there are something that would make dairying very profitable. Now, there is no question there is an opportunity for the immediate employment of soldiers and for creating an organized community or settlement. I feel sure also that the establishment of one or two settlements of that kind would entirely change the attitude toward agriculture in Massachusetts and that it would lead to the development of a country that under the isolated conditions of the individual farmer would not be developed for a long time to come. That same thing is true of every part of the country. I am convinced that there will be such need for employment and such desire for farms by soldiers that action by Congress along the lines proposed should be taken.

A tabulation made of 809 replies to a recent postal-card inquiry received up to February 3, 1919, showed that a large percentage of the soldiers had come from farms, still more had farming experience and wanted to get back there, and practically all wanted employment. I submit the inquiry and a tabulation of the replies:

DEPARTMENT OF THE INTERIOR—UNITED STATES RECLAMATION SERVICE.

Name in full-----
 Home address-----
 How old are you?-----
 What was your occupation before you enlisted?-----
 Have you ever worked on a farm?-----
 Are you interested in this plan to provide work and a home for you?-----

 What kind of farming do you wish to follow? State whether general, live stock, truck, or fruit-----
 Would you be willing to take a job on some project if offered to you?-----
 In your own State?----- Anywhere in the United States?-----
 (Write plainly and mail to-day.)

1. To date 809 of the card questionnaires distributed to soldiers have been returned. The data on these cards are summarized in the accompanying table.

2. The replies indicate that 46.1 per cent of the men were engaged in farming at the time of enlistment, that 88 per cent were either so engaged or had had previous experience in farming, and that of those who were engaged in some other occupation than farming at the time of enlistment 77.7 per cent had had previous experience in farming.

3. In reply to the question, "What kind of farming do you wish to follow?" several men mentioned two or more of the types suggested on the card. In making up this table the type first mentioned was given the preference as the man's choice. Replies to this question show that 57.4 per cent of the men choose general farming, 28.5 per cent live stock, 6.9 per cent truck, and 7.2 per cent fruit.

4. The replies as to the locality in which the men would be willing to take jobs show that 48.1 per cent would work in their own State or in some State specifically named, and that 51.9 per cent would work anywhere in the United States.

Summary of replies received to Feb. 3 on questionnaires distributed to soldiers in various camps.

State.	Number of replies.	Occupation before enlistment.		Previous farming experience.	What kind of farming do you wish to follow—				Would be willing to take a job—	
		Farming.	Other.		General.	Live stock.	Truck.	Fruit.	In own or some other specified State.	Any-where in United States.
Alabama.....	3	2	1	3	2	1			1	2
Arizona.....	1	1		1	1				1	
Arkansas.....	6	3	3	6	4	1	1		4	3
California.....	60	32	28	56	33	19		8	38	22
Colorado.....	20	8	12	20	15	4		1	11	9
Connecticut.....	7		7	5	4	1	1	1	2	5
Delaware.....	2		2	2	1	1			2	
Florida.....	4	3	1	4	2				2	2
Georgia.....	11	7	4	10	5	1	3	2	2	9
Idaho.....	45	35	10	45	33	11		1	29	16
Illinois.....	41	20	21	36	26	12	2	1	13	28
Indiana.....	31	17	14	31	25	4	2		10	21
Iowa.....	6	4	2	6	4	2			1	5
Kansas.....	14	10	4	13	12	2			3	11
Kentucky.....	19	13	6	19	11	5	2	1	7	12
Louisiana.....	5	3	2	4	2	2	1		2	3
Maine.....	1	1		1	1				1	
Maryland.....	5	2	3	4	3	1		1	2	3
Massachusetts.....	8	1	7	6	1	3	2	2	2	6
Michigan.....	10	3	7	9	6	3	1		4	6
Minnesota.....	11	5	6	11	6	4	1		2	9
Mississippi.....	2	2		2	2				2	
Missouri.....	21	9	12	19	14	6	1		8	13
Montana.....	17	13	4	16	10	6	1		10	7
Nebraska.....	5	1	4	5	5				1	4
Nevada.....	1	1	1	1		1				1
New Hampshire.....	2	1	1	2	1	1			2	
New Jersey.....	25	5	20	19	11	7	3	4	11	14
New Mexico.....	2	1	1	2	1	1			1	1
New York.....	71	7	64	45	36	13	10	12	34	37
North Carolina.....	9	7	2	9	5	4			2	7
North Dakota.....	11	7	4	11	10	1			4	7
Ohio.....	23	7	16	19	12	6	3	2	12	11
Oklahoma.....	22	19	3	22	13	7	2		13	9
Oregon.....	19	17	2	19	9	9		1	14	5
Pennsylvania.....	104	25	79	79	46	34	12	12	52	52
Rhode Island.....	3		3	2	1			2	1	2
South Carolina.....	1	1		1		1			1	1
South Dakota.....	5	5		5		4		1	1	4
Tennessee.....	10	7	3	9	8	2			3	7
Texas.....	13	8	5	12	11	2			6	7
Utah.....	22	18	4	22	15	7			17	5
Vermont.....	1		1		1					1
Virginia.....	36	18	18	36	23	10	3		17	19
Washington.....	28	13	15	25	20	6	1	1	20	8
West Virginia.....	26	7	19	19	7	14	2	3	12	14
Wisconsin.....	13	4	9	12	4	7	1	1	3	10
Wyoming.....	2	1	1	2	1	1			1	1
District of Columbia.....	2		2	2	1	1			1	1
Canada.....	3		3	3		3			2	1
Total.....	809	373	436	712	464	231	56	58	389	420

Many letters come to the California Land Settlement Board asking what California is to do and whether this country will do what Canada and Australia are doing. I believe this Nation must do about what the other English-speaking countries engaged in the war are doing. Every Province in Canada is making large appropriations to buy lands for soldiers. The Dominion of Canada will give a soldier 160 acres of land and lend him \$2,500 to improve and stock his farm. It lends \$2,500 to soldiers settling on land made available by any Province. The State of Victoria, Australia, is about the size of the State of Wyoming, and it has already spent \$5,000,000 for

land and expects to spend \$35,000,000 for land to meet the requirements of its soldiers when they come back. The Australians are over-run with demands for land by those who have been invalided home. The Dominion Government of Australia has made available \$200,000,000 for financing improvements and equipment on farms provided soldiers by the States. France is doing it, and so is England. The original appropriation in England has been multiplied by 10. In England community settlements are the rule, with a minimum of 100 families in a community.

Mr. HOWARD. Each individual owning a separate and distinct tract?

Dr. MEAD. Yes, sir. There should be at least 100 people. In our settlements in California we have people who are living this winter in their barns. It is not uncomfortable. They do not look on it as a privation.

Mr. MONDELL. In other words, each individual is willing to sacrifice and economize just as his neighbor does?

Dr. MEAD. Yes, sir; it is an adventure with them. They are sports, and they are proud to show what they can do. I was asked, What can be done for a man without capital? In Australia we found that the farm-labor situation was bad. So we began establishing homes for laborers as a part of the scheme. These men were given a block of 2 acres, helped to build a house on it, and given the same conditions of payment as the farmer. They work on the farms and provide the necessary farm labor.

Mr. GILLETT. As I understand it, while laboring for somebody else they had places to cultivate during their extra or outside hours?

Dr. MEAD. Yes, sir.

Mr. MONDELL. You found men who did not care to undertake the obligations of a farm, but who were perfectly content to have a small place which they could cultivate—for instance, as a garden—and use the balance of their time in working for their neighbors?

Dr. MEAD. Yes, sir. We found in the case of a lot of the laborers who were allotted blocks in Australia that their wives and children were willing to do almost anything to get homes of their own. They were willing to do heavy farm work in order to help meet the payments. In our first settlement in California there are 31 farm laborers' homes. There were 132 applications for the 26 first offered. We tried to select these laborers more carefully than we did the farm owners. We tried to get people who would be good members of the community and who would come into the life of the community and take a part in its development. Now, under our original act, the limit of value of a farm laborer's block was \$400. We did not want a man to try to be a farmer with inadequate capital, but to work for wages until he saved the needed money.

Mr. GILLETT. You are talking now about the laborers, are you not?

Dr. MEAD. Yes, sir; I am talking about the men who did not have to have any capital.

Mr. GILLETT. Do I understand that those farms in California are too large for a man to cultivate himself?

Dr. MEAD. Yes, sir; it requires a lot of work to farm some of them.

Mr. GILLETT. And you had to provide laborers for them?

Dr. MEAD. Yes, sir. Now, those laborers will not work for one man all the time, but for one man a part of the time and for another man a part of the time. We have five carpenters who moved out of the city, and they have 2-acre farms.

Mr. MONDELL. I understand that your plan would be to have farms that one man could operate, but the farmer would require, now and again, some extra help?

Dr. MEAD. Yes, sir. There is also other kinds of employment. There are concrete roads to build, and the workers there have varied opportunity for earning their living.

One settler is a market gardener, and he has 40 acres of land. That land cultivated in the ordinary way would not require anything more than he could do himself, but when I was there last year six men were working for him. This man made \$1,200 on tomatoes last year, and the probabilities are that the gross income from that 40 acres next year will be \$10,000. Of course, he needed help, and will need help. One of the men who had taken a farm laborer's allotment said: "I want to tell you why I have not done anything toward improving my block. I did not have any money when I came here, but I am getting \$2.50 per day and board; while my wife is getting \$4 per day and board working in an orchard. That is \$6.50 per day, and for the last two months every dollar of that has gone into the bank. You can go over there and see if that is true." He said further, "We expect by the 1st of January to have money enough to build a house, and then we will go at it."

Mr. GILLETT. There was no house on his block?

Dr. MEAD. No, sir; he was working for another man. We do not build houses for them unless they ask us to do so, and we do not build any houses in advance of settlement. I was there about the middle of this month and this laborer's house was nearly completed, built entirely out of the money made since they came there. Dean Hunt, of the University of California, was with me and was anxious to know something about the previous experience and future hopes of the settlers on laborers' allotments. To the first one he met he said: "I want to know what you are doing and how you came to settle here; I want to know what your plans are." The man replied, "When I came here I was on the bum." I am quoting his language, and what he meant was that he had attempted to buy a farm, had failed, and lost everything he had put in it. He was out of money and he was rather discouraged. So he took a 2-acre block.

Mr. GILLETT. Did he have to pay anything down on that?

Dr. MEAD. Yes, sir; he had to pay 5 per cent, and that was about \$20. He is very industrious; he could handle a saw and drive a nail and qualified as a carpenter, getting \$5 a day for eight hours' work. He told the superintendent that if he would arrange for the material he would build his own house. We have an arrangement with the Diamond Match Co., which has its main factories near that neighborhood, that if we vouch for settlers they will give them building material at wholesale rates. He made an arrangement with them by which he was to make monthly payments for material, and he bought something like \$700 worth. He and his wife built that house outside of working hours; they were at it as soon as it was daylight, and after he got through with the day's work they were back at it again. The house is finished now, with a chicken house

at the back, and when we were there he was putting in cold frames for plants. He was asked how much money he had when he came there and he said, "I did not have any." "How much do you owe now?" And he said, "I just owe \$6," and that was for lumber delivered a few days before. Asked what he planned to do, he said, "I am going to put this 2 acres in celery." And he was already planning for the time when he would get land enough for a farm of his own. He was asked about working for wages, and he said, "I have got to work for wages in order to live and until I get ahead." The point is that the poor but ambitious can start working for wages, can accumulate money while living in a comfortable home of their own. In this way we give hope and ambition to people that they did not have before.

Mr. BYRNES. In case there ever was an effort on the part of the Federal Government to aid in soldier colonies, what, in your opinion, should the Government do toward equipping a farm and how much should the Government require of the soldier that he put into the project? What is your opinion as to that?

Dr. MEAD. Well, I think the soldier ought to put in 10 per cent of the cost of equipping the farm. I do not believe you can safely take men without capital, because that will attract men of the least perseverance and stability. They would think, "I can take a fling at this thing without having it cost anything." Before a man is accepted as a settler he should be able to put in enough so that you will have some salvage if he proves a human failure. Whatever he puts in is an earnest on his part that he has considered it carefully.

Mr. BYRNES. Should there be any requirement as to knowledge and experience in farming?

Dr. MEAD. I think you ought to leave with the board that administers each settlement absolute authority to reject where they do not believe a man is qualified, and if he has not had any experience he ought to be put through a kind of a preliminary training. He ought to know what farming means.

Mr. BYRNES. How far should we go toward equipping a farm?

Dr. MEAD. That should depend on the locality entirely. It is a business matter and you have got to consider carefully. Each settler should do all that he can effectively, but he should be helped where working alone means waste of money and time. It is desirable that each settler be earning a living in the shortest possible time—

Mr. BYRNES. In other words, each case must stand by itself?

Dr. MEAD. Well, localities by themselves; yes, sir. I think you have got to get it so that you get the full earning power out of one of these places within two years.

Mr. BYRNES. Do you mean that homes should be constructed for the men who go on the farms and that farm machinery should be furnished to them?

Dr. MEAD. I think there is no question about the homes. You take a community needing 100 buildings; building those homes ought to be under the supervision of the management, so that the farmers may be relieved and so that material may be bought at wholesale. I would not build houses until settlers are ready to live in them and would be sure he was satisfied with the house and its location.

Mr. BYRNES. Would you let him have a say as to how expensive the house should be?

Dr. MEAD. You can put a veto power on it if it is too much.

Mr. MONDELL. From what you have said and what Secretary Lane said the other day, my notion is that this is about what you have in your mind, and in order to have a brief, concrete statement of what it may be let me make a brief outline of what I gather from what you say, and see how far or near I am to your views: Say you went into Massachusetts, on the tract you suggested or referred to, which requires grubbing and leveling, or into one of the Carolinas, say, on a tract that needed drainage, securing a sufficient acreage for your community settlement, or into one of the arid regions on a tract needing reclamation by irrigation, you would first invite into your enterprise the workers on the enterprise who might desire to settle and become permanent settlers; you would give them employment in the initial work of draining, irrigating, grubbing, or whatever might be necessary in the way of preparation, preparatory to the time of cutting the land up into farms; then you would cut it up into farms, and around your central town or community you would also have some smaller acreages for the man who did not want to take the obligation of a farm.

Dr. MEAD. Yes.

Mr. MONDELL. The extent to which you would go beyond the actual preparation of the soil for a crop would depend somewhat on the local conditions.

Dr. MEAD. Yes.

Mr. MONDELL. To be determined very largely after or as you progressed with your initial development, and while your men were there at work, and that by the time you reached the point of preparing the land for use you would then determine how far in each community it would be wise or necessary to go in the way of furnishing additional facilities, in the way of buildings and aid, and in the meantime you would be getting together the men who desired to take these obligations and secure these opportunities largely among the men who had aided in the development work—is that the idea?

Dr. MEAD. Yes. I personally would like to have every man who takes a farm work a while in order to see what kind of a man he is before selecting him. I think that would be a very valuable thing.

Mr. GILLET. As I see it, the vital difficulty is that everyone who settles, according to your theory, must have at least \$400 in his pocket.

Dr. MEAD. He can take a small allotment, a farm laborer's allotment, and start as those people started about whom I have been telling you, and graduate out of it.

Mr. GILLET. Are there enough soldiers with \$400 to take up the farms?

Dr. MEAD. They can soon earn it.

Mr. GILLET. How will they earn it?

Dr. MEAD. Here is the point about it—

Mr. GILLET (interposing). The trouble is, as I understand it, that many of them would not have that much, and many of them have nothing to do, and that this is supposed to provide them something to do right off.

Dr. MEAD. Take what we are doing. We have 75 men employed on the California settlement, outside of the settlers, in building roads and building ditches.

Mr. GILLETT. Who is "we"?

Dr. MEAD. The State Land Settlement Board of California, and I would say that we have 20 soldiers at work there now.

Mr. GILLETT. They do not save much, do they?

Dr. MEAD. Yes.

Mr. GILLETT. Do they get enough so that they can save much?

Dr. MEAD. Yes, sir; they do. You put the right kind of a lure ahead of them, and if they are the right kind of men they will save, and they must save after they undertake to buy.

Mr. GILLETT. Who pays those 75 men, do you?

Dr. MEAD. Yes, sir.

Mr. GILLETT. Is that charged in as a part of the overhead?

Dr. MEAD. Yes, sir.

Mr. GILLETT. And paid out of this \$200,000 extra?

Dr. MEAD. Yes, sir; that comes out of the \$200,000.

Mr. MONDELL. Your theory is that to the man who has no money to amount to anything, but who wants employment, you first give employment?

Dr. MEAD. Yes, sir.

Mr. MONDELL. In the development of the land?

Dr. MEAD. Yes, sir.

Mr. MONDELL. With the expectation that if a man had nothing to begin with that by the time the land is developed, which may be a year, a year and a half, or possibly two years, in some cases—if he is the right sort of a man—he will have saved enough money to make his initial payment, whatever it may be?

Dr. MEAD. Yes.

Mr. BYRNES. And if he does not save it or stick to his work he would not be wanted anyhow?

Dr. MEAD. That is right. He has got to work and save after he begins to buy his farm; it is not an endowment; he has got to make the struggle some time and he may well begin before you put him in possession.

Mr. BYRNES. And by that method you cull out the applicants?

Dr. MEAD. Yes, sir.

Mr. BYRNES. You referred to the fact that you had a report from South Wales and also a letter from your successor.

Dr. MEAD. That is the letter [indicating].

Mr. BYRNES. How about the report?

Dr. MEAD. I will get that and hand it to you afterwards.

Mr. BYRNES. Your statement will be forwarded to you and if there is in that report anything you deem of importance I wish you would add it in connection with your statement.

Dr. MEAD. I want to say this, that the amount of this appropriation will not touch the fringe of the demand for land that is going to come, but you ought to begin small because there is a tremendous amount of organization and learning the things that can be done and can not be done. One hundred million dollars is not going to meet the demand that is to come, but it would enable this settlement work to be organized, to get people to study it and get the right kind of people into it before the large demand comes. If in California we had had \$11,000,000 in the start we would have made a failure because we could not have used it wisely at the outset; but we started in a small way and we are where we can now expand.

Mr. MONDELL. As a practical man, do you think that the \$100,000,000 could be advantageously and economically used by the Federal Government during the first year?

Dr. MEAD. Yes; I think so.

Mr. GILLETT. I suppose you must weed out administrators just as you must weed out careless farmers.

Dr. MEAD. Yes, sir.

Mr. MONDELL. You would not think that a larger sum than that ought to be appropriated as an initial appropriation?

Dr. MEAD. No, sir.

Mr. MONDELL. Do you think a lesser sum would be sufficient to make a fair start?

Dr. MEAD. Well, what I think is that if it is handled wisely and we do not need the whole \$100,000,000 it will not be spent.

Mr. GILLETT. That would be a new departure.

Dr. MEAD. Well, you are introducing a new idea into Government expenditure. This is to be repaid, and I have confidence in Mr. Davis and that he will not go beyond what is safe.

Mr. GILLETT. We all share that opinion.

Mr. DAVIS. When Secretary Lane was before the committee the question was made as to a change in administrative officers and the advisability of presenting such a project as this in view of the periodical changes of administration, and he made the reply that while the Secretary of the Interior had general supervision, that the real administration was carried out by heads of bureaus and mentioned my name. He said I would have the administration of this work; and I want to say that, so far as the settlement end is concerned, of which Dr. Mead has already been placed in charge, he is going to have a free hand, because I think that is the wise thing to do. He knows more about it than anybody else, and I will never be the man to hamper him. As I have told him twice, if, in the opinion of himself or anyone else handling it, it would be better for him to be at the head of the service, he is perfectly welcome to it and I will be perfectly willing to help him in any way I can.

FRIDAY, JANUARY 31, 1919.

STATEMENT OF MRS. G. H. MATHIS, GADSDEN, ALA.

RECLAMATION OF SWAMP LANDS.

(See pp. 841, 876, 914.)

Mr. BYRNES. Where are you from?

Mrs. MATHIS. I am from Alabama.

Mr. BYRNES. What work have you been engaged in?

Mrs. MATHIS. In revolutionizing the farming methods of the State.

Mr. BYRNES. If you care to do so, we would be glad to have you make a statement to the committee with reference to this soldier-colony bill.

Mrs. MATHIS. It seems to me that you are taking a step in the right direction, and that it is a thing which must come sooner or later for us as a Nation. We have got to get away from the condition of tenancy; somehow we have got to get away from it. We all know that war, pestilence, famine, and tenancy are the four things that in the

past have destroyed nations. In the United States, as I see it, we are right up against war and war conditions and up against the question of tenancy, of nonproperty owning, and we must relieve the condition of that crowd of people who are nonproperty owners, not only soldiers but others, too, and we must get away from the great unrest that confronts us. As Senator Bankhead said, we have got ourselves pushed right to the top now and how are we going to get down? We can not come down one at a time; we have all got to come down together, and that is the problem with these returning soldiers. I know it is so in our State, because they are walking around and saying, "What have I to do?" "Where will I go?" We must provide a way, and we are trying to do it, but we are not meeting all the situation.

Mr. BYRNES. In the State of Alabama you have a pretty large number of tenant farmers, have you not?

Mrs. MATHIS. Yes; we have over 1,000,000.

Mr. BYRNES. And that is true of most of the Southern States?

Mrs. MATHIS. Yes; that is true throughout most of the Southern States.

Mr. BYRNES. Have you any colony projects in Alabama?

Mrs. MATHIS. Not many; because we have not developed that idea to any great extent. When the war broke out in Europe in 1914 Alabama had grown its largest cotton crop. We had 1,800,000 bales of cotton, and these 1,000,000 tenants—that is, about 1,500,000 of the farming people—were almost entirely dependent upon the sale of that crop, because they did not grow their own feed and food. We were shipping into the State \$106,000,000 worth of feed and food and growing cotton to pay for it. We were not growing quite half of the food for the State. So we were confronted with a very serious situation, a situation of being unable to sell the crops we had grown. Most of that had been grown on credit, and about 75 per cent of the farms in the State were mortgaged, so we could not get any more money to go further. That just puts it where it was. The banks of the State, which had been in the habit of financing the farming element of the people, either through the landowner or through the man who did the work on the farm, could not advance any more money, or did not think they could, and so we had a very serious situation approaching us. It had not gotten exactly to a crisis, but in November and December of 1914 the bankers over the State were meeting everywhere to know what we were going to do.

In the meantime, those whom I happened to know—I am a farmer; live on a farm and manage a farm—called me into quite a number of their meetings, I suppose rather more because I had taken large tracts of land and had pushed them entirely away from the credit system and had pushed the tenant class on my lands away from the tenant system until they had all bought homes of their own, and for that reason I guess I was called into consultation. They said every time, "What are we going to do? We can not let this situation break the banks, and we have advanced all the money we can possibly advance." I said this to the bankers: "Men, you do not dare stop; you just stop now and these people will all go off of the lands, and the roads are pretty full of them moving away. So you do not dare stop and let these people go away; we have got to stay with the game further; we have to advance money and let these people go another year." At first the bankers said, or at least a good many of

them said, "We can not do it." I said, "We have got to do it; it is a case of working along or shutting up for all time, and we must not abandon these people in this sort of a time." Well, then, they said to me, "What would you advise?" I said, "Let us advise sane farming." There is such a thing as absolutely sane farming, and every good farmer who has tried it out knows that, because I know I have, and it will work.

The thing I suggested was that the farmers plant one-third of the land in corn, one-third in wheat, other grains, and potatoes, and one-third in a money crop, and it does not matter what the money crop is, any crop that you can sell, whether it be truck or wheat or potatoes, or cotton or tobacco, or anything at all. Upon that basis the bankers said they guessed they had better try it. In the meantime, they asked men to go to Montgomery and see the governor. The governor said he did not believe it would work, and that we would have to throw this 1,000,000 of people or 1,500,000 people on the Federal Government to be fed, and that was his idea—to throw the feeding of 1,000,000 people on the Federal Government. I said, "Governor, it will never do on the face of the earth, and I for one will fight it to a finish. We have a climate where we can plant something to eat every month in the year, and to talk about throwing 1,000,000 people on the Federal Government is out of the question." And I said, "No; we must stay in the game." Then I said this to him: "Governor, you are a pretty rich man, and all the money you have you made out of Alabama, and I think the time has come when those of us who have made something should stand with those who have not. Let us stand together and go after the situation." He laughed and joked and said, "I know you are right and I do not want to discourage you, but you can not do it; I think you are on a wild-goose chase." I said, "If I am I will keep on chasing that wild goose until I catch it, anyhow."

Then he said: "If we were to advance this money and start these people, what do you think would be the result?" I said, "In less than six months' time we would make \$20,000,000, and as long as we can do that, let us do it." He said, "Well, very well. Are you willing to go around this State and try to do this work?" I said, "Yes; I am; are you willing?" And he said, "Some." I said, "All right; you do what you can, but that means work. We must not give up. We must get our bankers together and go around this State and hold them in line and have a steady credit, and, if necessary, go to the Comptroller of the Currency at Washington and let him know that this additional credit will be paid back in less time than six months." As a matter of fact, in six months' time we increased the food supply \$90,000,000 and nobody lost any money. As I said, we were importing \$106,000,000 worth of feed and food. We stayed right with the game. I went over the State, into every nook and corner. I would write to the bankers of a county and say, "I am coming to give your county two or three days; you attend to the meetings and get up the whole thing, and when I come I will go to as many places as you think I should go to." And we went on and on and the crowds kept getting bigger and bigger, until you could not get the people into a house.

People were coming from 80 miles around, and mighty glad those farmers were. I talked to 5,000 of them in one day, and it seemed

to me there would not be a dry eye among all of those people when you showed them how to work and get better results, because they all seemed very willing to work. So in that way we got the thing started and going, and in 1916 we were still driving at it. I believe that in 1916 we grew enough to cut out the \$106,000,000 of imports, but a tropical storm came along in July and knocked our crops flying; my own crops went into the Gulf of Mexico. So we had no crop and we were knocked back where we were in 1914. In 1917 we went into the war, and we were still in a deplorable condition in the State, but we kept together like one great, big family. I said many times that if the blue sky of Alabama hangs over us, then we are one, and it matters not as to market conditions or anything else; this is our own splendid household, and we are going after this thing if it takes the last dollar we have on earth; and we went after it, and in 1917 our crops had increased, over 1914, \$111,000,000 of feed and food, and in 1918—that was last year—our feed crops had increased to \$158,615,000 and we wiped out our \$106,000,000 worth of imports.

Mr. BYRNES. You are living at home now?

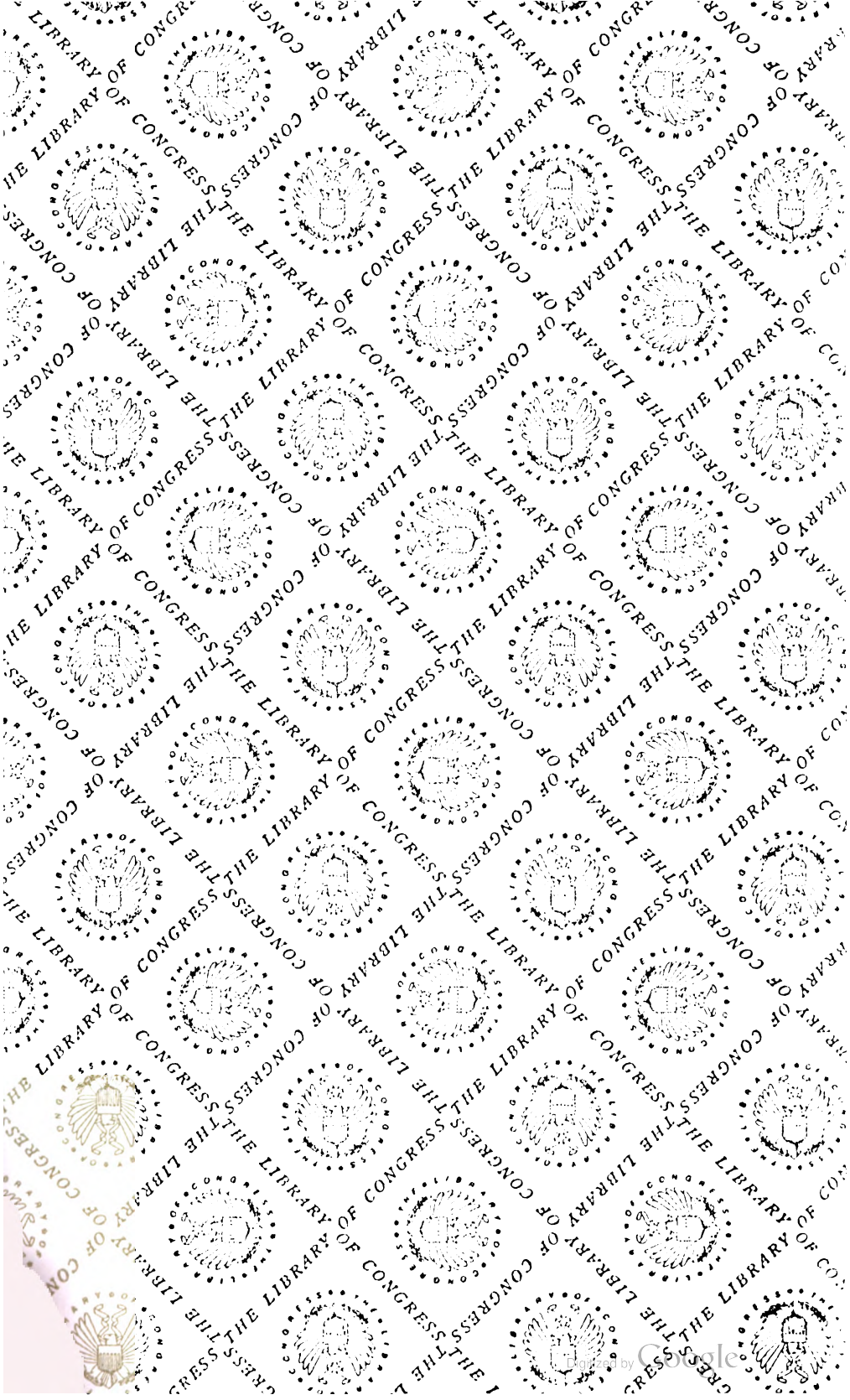
Mrs. MATHIS. Yes, sir; and all the folks did well; every bank in the State has doubled its deposits, and every merchant has doubled his trade, and nobody has lost a dollar, and we have learned how to work together. Now, I want to ask you to take hold of these boys, these blessed returning boys, especially the ones who are wounded and gassed. A gassed man can not go inside of walls any more, because if he does he goes out. Let us take hold of these blessed boys. My own son was wounded four times, and he is right out here now in the Walter Reed Hospital. I do not need to ask anything for him—he has an opening before him—but there are 40 others out there, and my boy told me yesterday that he believed he was the only one among them who really knew what he was going to do or what he could do. I would be glad to go out there and tell those blessed boys to go on land, "Boys, go on land." I have men on my own land who had nothing at all when they came there. One man and his father have 88 acres of my land which they rent from me. They plant anything on that land that they want to and pay me \$1,200 a year for that land. In 1917 their crops amounted to a little over \$5,000, and this last year, 1918, they amounted to \$6,000.

Now, those men are quite illiterate; and how on the face of the earth could men in their position make that much money in any other way? Folks, they just can not do it. Farming is a good business; it is free, it is open, and you have the eternal consciousness that the Creator himself is a partner, and that is the ennobling thing about agriculture. It is not only a living, but you walk with your Maker, and I am always saying to men, "What greater dignity can be put on anything than that you walk with your Maker?" The Creator is an invisible partner of the farmer, and therein lies the contentment and therein lies the happiness, and therein is the thing that silences unrest; and it seems to me we need to think together, to get together, and love together, so that we may save our blessed country.

Mr. MONDELL. I think your enthusiasm and helpfulness is better than an appropriation.

Mrs. MATHIS. I just wish I could go to every Army camp.

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